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STUDIES IN INDIAN CURRENCY AND EXCHANGE

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PREFACE

This book of studies in Indian currency and exchange is based largely upon lectures delivered to University students on Indian currency problems during the period 1921-7. In addition to new matter, it contains in a revised form most of my contributions on this subject which have appeared in the second part of the first edition of my *Indian Currency and Exchange* published in 1925, in my evidence before the Hilton Young Commission and in *Some Aspects of the Indian Currency Problem* published in 1927. It is much more advanced in treatment than my *Indian Currency, Banking and Exchange* published in 1929, to which it is intended to be a companion volume.

The main suggestions I made for the reform of the Indian currency system in the first edition of *Indian Currency and Exchange* and in my evidence before the Hilton Young Commission—the convertibility of rupees and notes into gold bullion, the demonetization of the British sovereign, the amalgamation of the Paper Currency and Gold Standard Reserves, the location of this combined reserve in India, the accumulation of a large gold holding in the reserves, and the creation of a central bank to assume control of both currency and credit—have all been approved. On one important issue, namely the question of stabilizing the gold value of the rupee, the recommendations of the Commission ran counter to the course I suggested; but as a dispassionate study of the last chapter in this volume will show, the actual course of events has amply vindicated my opposition to the

policy of stabilizing the rupee-gold exchange at a time when the course of world prices was still uncertain.

Some of the currency and exchange problems still continue to be the subject of bitter controversies among Indian publicists and it is not possible for any writer, however impartial, to expect that his views on controversial questions will be accepted in their entirety by every school of thought in the country. The Indian currency system is not an easy subject to master and the inherent difficulties of the subject are greatly increased by controversies in which leading publicists and economists often take opposite sides and bewilder the layman by their special pleadings and even personal differences. I have attempted to the best of my ability to state as fairly as possible the other side of the case in each controversial issue, and I hope that the Indian publicist as well as the general reader will find this volume a useful guide through the maze of never-ending, and sometimes unedifying, currency controversies.

H. L. CHABLANI

Delhi, 1931

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CHAPTER I

CLOSURE OF THE MINTS 1893

1. The foundations of the existing currency system of India were laid in the year 1893, when the Government of India decided, on the recommendations of the Herschell Committee, to close the Indian mints to the free coinage of silver. In order to appreciate fully the reasons which led the Government of India and the Herschell Committee to condemn the free and automatic silver standard which had prevailed in India before 1893, we must bear in mind the wide fluctuations in the price of silver in the period 1872-92¹ and the effect of these variations in the price of silver on the rates of exchange between silver and gold-using countries. The price of silver began its downward course in the period 1872-5 when it fell from $60\frac{5}{16}d.$ to $56\frac{7}{8}d.$ per ounce. During the same period the rupee-sterling exchange, which had stood almost uniformly at a trifle below 2s. during 1863-74, gradually dropped and reached 1s. 9.628*d.* during 1875-6. From then, with every fall in the price of silver, there was a corresponding fall in India's exchange² with gold standard countries. Exchange with other silver standard countries was, however, free from this disturbing cause. It was comparatively steady, its normal range being determined by the 'silver points', the counterparts of the 'gold points' in exchange between gold standard countries.

¹ See my *Indian Currency, Banking and Exchange*, pp. 44-5, 52.

² *Op. cit.*, p. 14.

To many engaged in the trade between India and the United Kingdom this state of affairs appeared almost intolerable. They complained that trade with gold standard countries was seriously harassed by these fluctuations in exchange, and that all legitimate trade was replaced by mere speculation and gambling. They argued on *a priori* grounds that the tendency of a falling exchange was to depress the import trade, especially in cotton goods, inasmuch as it increased the price in rupees of goods imported from the United Kingdom and other gold standard countries, and to confer an unfair advantage on the exporter from India inasmuch as it enabled him to receive a higher silver price in respect of the same gold price, whilst wages and other factors of production in India remained much the same as before. They contended that the falling exchange imposed a special disadvantage on India's trade with European countries, and diverted it to silver standard countries. These supposed evil effects of the fall in exchange on India's commerce, especially her import trade, constituted the first charge in the indictment against the silver standard.

The second group of people who complained against the silver standard consisted of English officials, employed mostly in Government departments, who received their salaries in rupees, but had constantly to remit a substantial part of their earnings to England either as savings or as contributions to their families. The decline in the sterling value of the rupee appeared to inflict on them an unmerited loss: they might have saved the same number of *rupees* as before, but their families in England received fewer *sovereigns* in exchange for them. They felt that they had a legitimate cause for complaint against

Government, when they found that several European commercial houses had sanctioned a special allowance to their European employees to compensate them for the loss which they suffered owing to the fall in exchange.

But by far the most important consideration with those who advocated a departure from the silver standard, was the financial burden which the falling rate of exchange was said to impose on the Indian Government. Every year India has to make substantial payments in England, known as 'home charges', for such items as interest and annuities on the debt, salaries, pensions and leave of absence allowances of foreign employees in India's service, purchase of stores in England, and other expenses incurred by the Secretary of State on behalf of the Indian Government. As all these payments were on a gold basis, the fall in exchange increased the amount of *rupees* to be laid aside by the Indian Government in order to remit the home charges in sterling. The element of uncertainty which this factor introduced in the Indian budget was forcibly pointed out by Sir David Barbour in the following passage in one of his published statements : 'Our financial position for the coming year is at the mercy of exchange, and of those who have it in their power to affect in any way the price of silver. If we budget for the present deficit of Rs. 15,95,100, and exchange rises one penny, we shall have a surplus; if it falls a penny, we shall have a deficit of more than three crores; if we impose taxation to the extent of one-and-a-half crores of rupees, a turn of the wheel may require us to impose fresh taxation of not less magnitude; another turn, and we may find that no taxation at all was required.' In other words,

the Indian budget was said to be 'a gamble in exchange'. The continuous fall in exchange was alleged to involve Government in a heavy loss, which had to be made up either by (a) retrenchment, or (b) fresh taxation. Neither of these two courses appeared feasible to Government. They considered it impossible to meet by retrenchment the 'great and growing deficit caused by falling exchange', and they found it difficult to lay their hands on any satisfactory method of increasing the revenue. They fought shy of import duties on cotton goods or an export duty on cotton because of the storm of protest it was likely to raise in Lancashire. They felt that they would be committing a serious political blunder if they were to increase the burden of income-tax or salt tax, as these taxes were already unpopular in India. There remained only Land Revenue to fall back upon, but a part of the country was under permanent settlement and the rest settled for long periods of thirty years. Moreover, in the larger part of the country the thirty years' settlement had been made only recently. The obstacles to the increase of revenue thus seemed almost insuperable, and Government came to the conclusion that the only solution of these difficulties lay in changing the standard.

2. Let us examine each of these complaints critically. There is no doubt that theory supported the view that, *other things remaining the same*, a depreciating currency or a falling exchange tended to stimulate exports and discourage imports. But at the same time it showed (a) that the advantage to the exporter was largely at the expense of the other classes of the community, and (b) that it could be only temporary. As pointed out by Professor Marshall in

his evidence before the Fowler Committee, the common opinion, that a depreciating exchange was for the benefit of an export trade, rested upon the natural habit of regarding the interests of the *entrepreneur* as co-extensive with those of the trade. What really happened when a currency was depreciated, was that a person who was under obligations to make certain currency payments (those obligations being in some cases fixed by definite contracts, in particular when he had already borrowed money at a definite rate of interest, but in other cases governed by custom), was allowed, through the change in the value of the currency, to discharge those obligations at less cost to himself and less benefit to those who were engaged with him in trade. There was no doubt that a fall in the value of the currency was a bounty; but it was a bounty *not to the export trade* but to *one class* in the export trade at the expense of the other classes engaged in it.

It is easy to see how long this bounty could last. The depreciating rupee was advantageous to exporters only so long as the cost of production and prices in India did not rise in terms of silver. When that happened, the bounty would disappear. In other words, there was a race between the *specific depreciation* of the rupee in terms of sterling, and its *general depreciation* in terms of commodities and services. Exports would be stimulated only so long as the specific depreciation was greater than the general depreciation.¹

Turning now to the available statistics of India's foreign trade during the period of falling exchange, we

¹ *Fowler Committee Report*, Minutes of Evidence, Q. 71595296.

find still less support for the fears of the alarmists in England. Imports from gold standard countries did not show even a temporary decline ; on the contrary they showed appreciable increase. The proportionate increase of exports from England to India was greater than from India to England ; and the increase had been steady. English trade with India had increased, both absolutely and relatively to her trade with other countries, as will be seen from the following figures placed before the Gold and Silver Commission by Mr. Waterfield.

Years	Figures representing the total trade between India and the United Kingdom		Percentage of trade with India to the whole trade of the United Kingdom
	Imports into India	Exports from India	
1874-5	100	100	8.5
1875-6	96	101	8.5
1876-7	110	105	8.5
1877-8	132	110	8.9
1878-9	93	101	8.5
1879-80	108	99	7.8
1880-1	132	111	8.9
1881-2	127	125	9.2
1882-3	135	127	9.8
1883-4	145	132	9.9
1884-5	147	121	9.7
1885-6	146	124	9.8
1886-7	154	125	10.5

In fact, circumstances were on the whole exceptionally favourable to imports from the United Kingdom. During the period 1873-93, the gold prices of cotton manufactures declined on the average 34 per cent, the gold price of sugar fell 38 per cent, that of iron bar 60 per cent and of petroleum 74 per cent, while

the maximum fall in exchange was only 34 per cent. In these circumstances there could be no advance in rupee prices of imported goods.

Nor did statistics support the allegation that the falling exchange stimulated exports and discouraged imports. The available figures led the Herschell Committee to the following conclusion on this point: 'Although one may be inclined, regarding the matter theoretically, to accept the proposition that the suggested stimulus would be the result of a falling exchange, an examination of the statistics of export produce does not appear to afford any substantial foundation for the view that in practice this stimulus, assuming it to have existed, has had any prevailing effect on the course of trade; on the contrary, the progress of the export trade has been less with a rapidly falling than with a steady exchange. For example, from 1871-2 to 1876-7, while the gold value of the rupee fell constantly from 23·126*d.* to 20·508*d.*, or about 11½ per cent, the exports of merchandise were actually less in the later years than in the former, although in 1876-7 their rupee value exceeded by about 10 per cent that of the exports of either 1870-1 or 1872-3. From 1878-9 to 1884-5 exchange was fairly steady, the average rates varying between 19·061*d.* and 19·308*d.* per rupee or about 3¼ per cent; and during these six years the exports rose by no less than 36½ per cent. Again between 1884-5 and 1888-9 the fall of the rupee was very rapid, from 19·308*d.* to 16·379*d.* or over 15 per cent and the exports increased during those four years by 16½ per cent; but in the single year 1889-90, when there was a slight improvement in the exchange, the exports increased by more than 6½ per cent. It is said, too, that whilst a falling exchange

tends to stimulate exports, there is a corresponding tendency to check imports. Here, again, *statistics* do not seem to show that diminished imports have been coincident with a lower exchange. Taking the same periods as before, from 1871-2 to 1876-7, when exchange fell $11\frac{1}{4}$ per cent, imports of merchandise to India increased by 17 per cent ; from 1878-9 to 1884-5, when exchange was steady, the increase of imports exceeded 47 per cent ; between 1884-5 and 1888-9, when the rupee fell about 15 per cent, the imports were augmented by nearly 25 per cent ; while in 1889-90, when exchange rose slightly, the imports were rather less than in the previous year. Upon the whole, we cannot see any evidence that the effect of a falling exchange on the country at large, in influencing either exports or imports, has over a series of years been very considerable. Some trains of *a priori* reasoning would seem to lead to the same conclusions, and also to the further conclusion that, even if a fall in the gold value of the rupee does stimulate exports, the result is not necessarily to the benefit of India as a whole, though it may temporarily benefit the employer at the expense of the wage earner, because wages rise more slowly than prices.'

On the whole the foreign trade of India was progressing quite satisfactorily under the silver standard. Its value had more than doubled since 1874-5, when the fluctuations of exchange began. It was 800 lakhs in 1873-4 ; it had increased to 1,700 lakhs in 1890-1. It was Rs. 5.4 per head of the population in 1880 ; it went up to Rs. 6.8 per head in 1890.¹

No doubt the frequent fluctuations of exchange

¹ See the evidence of Sir Frank Forbes.

introduced an element of uncertainty in commercial bargains; but this was by no means an insuperable difficulty. As was explained by several witnesses before the Gold and Silver Commission, 'if a particular fluctuation in the exchange involves a loss on an export transaction from this country (United Kingdom) to the east, it must simultaneously give rise to a corresponding gain on an export transaction in the opposite direction. To the merchant engaged in both the export and import trade, any loss will therefore be balanced by a gain; while as regards others, it is the business of dealers in exchange to balance those losses and gains, and their charges for their services will, by competition among themselves, be reduced to the lowest possible rate, the burden of which will practically be inappreciable.' As a matter of fact, this element of risk was greatly eliminated by various devices, such as 'the making of forward contracts with the exchange banks for the purchase or sale of exchange at rates, fixed months in advance, and "hedging" through the forward purchase or sale of silver on the London market so that the loss on exchange would be compensated by a profit on the silver transaction and vice versa'.

But even if the foreign trade of the country suffered some inconvenience, that was hardly an adequate reason for changing a currency system that was otherwise suited to the needs of the country. After all, the external trade of India with gold standard countries was only five per cent of her total (external and internal) trade. In deciding upon the monetary standard best suited to India, the internal trade of the country had a far greater claim upon the attention of the authorities. An overwhelming majority of the

witnesses before the Herschell Committee agreed that the silver standard was the most suitable for the internal trade of India; and in the face of this evidence, to force a change of standard in India because of seventy to eighty per cent of her *external* trade was hardly a justifiable decision.

Even from the narrow point of view of India's *foreign trade*, a debtor country like India had reason to attach great importance to her trade with silver-using countries, which was likely to be adversely affected, at least temporarily, by any rise in exchange. For India then depended for her *favourable* balance of trade more upon her trade with silver-using countries than upon that with gold standard countries, as the following tables will show.

Table I. Trade of India with gold and silver countries respectively in 1890-1 (omitting Government stores)

Gold countries	Merchandise, net exports (i.e. exports minus imports)	Final balance. Merchandise and treasure, net exports
	Rs.	Rs.
United Kingdom	- 1,93,46,680	- 2,98,47,893
Continent of Europe except Aus- tria and Russia	1,81,77,539	1,78,84,168
Asia: Turkey and Java	1,85,783	- 45,149
Africa: Cape, Natal, St. Helena and Egypt	47,16,602	45,10,699
America: Canada, United States and West Indies	26,51,848	26,46,348
Australasia	9,77,169	- 6,39,511
Total	73,62,261	- 54,91,338

Silver countries	Merchandise, net exports (i.e. exports minus imports)	Final balance. Merchandise and treasure, net exports
	Rs.	Rs.
Europe: Austria and Russia ...	22,54,113	12,77,386
Asia, except Turkey and Java ...	2,02,76,541	1,42,69,527
America : South ...	7,29,112	7,29,112
Africa: east coast, Mauritius and Madagascar ...	50,880	4,29,121
Other countries ...	4,27,915	75,706
Total ...	2,37,38,561	1,67,80,852

*Table II. Trade of India with gold and silver countries
in 1891-2 (omitting Government stores)*

Gold countries ...	1,93,98,360	1,14,85,093
Silver countries ...	2,20,50,193	1,85,27,484
Total ...	4,14,48,553	3,00,12,577

3. The second ground for complaint likewise appears on close examination to have no substance in it. The official in India had suffered no appreciable loss for which he deserved any compensation. The loss in remitting money to England was to a large extent covered by the gain from the *fall* in English prices during this period. If exchange had not fallen, he would no doubt have gained by this fall in prices; but he had no moral claim to this undeserved gain as it had not entered into his calculations at the time he joined service in India.

Besides this, allowance had to be made for the fact that the salaries of these officials were higher than they need have been. As Mr. Adams pointed out to

the Herschell Committee, 'all salaries of servants in India were fixed a very long time ago, when salaries for services requiring an equal standard of ability and character were at a much higher level' than the market rate prevailing at the time of the evidence.

Taking the most generous view of the matter, the English official in India was entitled to compensation only to the extent to which it was reasonable that he should remit money to England, say one-third of his salary. Even this concession was justifiable only in the case of people who had entered the service under existing contracts. As for future recruits, their salaries, pensions etc. should have been fixed in silver rather than force on India a change in her monetary standard. At any rate, 'to tamper with the monetary standard of a vast population for the sake of what was relatively a small, and mainly, a foreign interest savoured of setting another person's house on fire to roast one's sucking-pig' and was 'something like the betrayal of a national trust, all the more glaring in that Great Britain did not in its discharge take the people themselves into council'.¹

4. The last was undoubtedly the most weighty argument. The fall in exchange made the task of framing a satisfactory *budget* a difficult one and at times threatened to involve Government in considerable embarrassment. But the extent of loss from this source was greatly exaggerated in the usual official complaints against the silver standard. The official figures for loans raised by India in England were calculated on the basis of a 2s. exchange, whereas a great many of them

¹ From the memorandum of R. B. Chapman, C. S. I., Secretary to the Government of India in the Department of Finance and Commerce from 1869 to 1881.

had been raised at rates varying from 1s. 11d. to 1s. 9d. down to 1s. 7d.¹ Government were shown to have incurred a loss on the amount spent in the purchase of stores in England on account of the fall in exchange, whereas, owing to the greater fall in gold prices, Government in reality had gained and not lost in respect of this item.²

Nor was the situation so desperate as to call for so drastic a remedy. The financial history of the period of falling exchange lent no support to the alarmist view Government seemed to take. The following table taken from the Appendices to the *Fowler Committee Report* shows the net financial result for each year from 1872-3 to 1893-4.

Price of silver; rate of exchange; surplus or deficit in the accounts of Government of India from 1872-3 to 1893-4

Year	Average price of silver in London per ounce	Average rate per rupee at which bills and telegraphic transfers on India were sold by the Secretary of State	Surplus or deficit of the year	Remarks
1872-3	d. 60 $\frac{1}{8}$	d. 22·754	Rs. 17,65,672	Commencement of decline in price of silver. Demonetization of silver by the German Government.
1873-4	59 $\frac{1}{2}$	22·351	-18,07,668	
1874-5	58 $\frac{5}{8}$	22·156	3,19,197	
1875-6	56 $\frac{7}{8}$	21·628	15,89,255	
1876-7	52 $\frac{3}{4}$	20·508	-25,84,176	

¹ See the evidence of Sir Frank Forbes.

² See Professor Marshall's evidence before the Gold and Silver Commission.

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Year	Average price of silver in London per ounce	Average rate per rupee at which bills and telegraphic transfers on India were sold by the Secretary of State	Surplus or deficit of the year	Remarks
1877-8	d. 54 $\frac{1}{8}$	d. 20.791	Rs. -42,62,040	} Famine in India. Suspension of silver sales by the German Government. Diminution in production of Californian mines.
1878-9	52 $\frac{9}{16}$	19.794	21,34,098	
1879-80	51 $\frac{1}{2}$	19.961	-12,27,893	
1880-1	52 $\frac{1}{4}$	19.956	-36,31,394	} Monetary conference in Paris.
1881-2	51 $\frac{1}{16}$	19.895	35,95,451	
1882-3	51 $\frac{5}{8}$	19.525	6,74,837	} Suspension of coinage of the Bland dollar recommended by the President of the United States.
1883-4	50 $\frac{9}{16}$	19.536	18,79,477	
1884-5	50 $\frac{5}{8}$	19.308	-3,86,446	
1885-6	48 $\frac{5}{8}$	18.254	-28,01,726	
1886-7	45 $\frac{3}{8}$	17.441	1,78,427	
1887-8	44 $\frac{5}{8}$	16.898	-20,28,832	} Great depression in trade.
1888-9	42 $\frac{7}{8}$	16.379	37,018	
1889-90	42 $\frac{1}{16}$	16.566	26,12,033	} Purchases of silver by the United States Treasury raised to 54,000,000 ounces a year.
1890-1	47 $\frac{1}{16}$	18.089	36,88,171	
1891-2	45 $\frac{1}{16}$	16.733	4,67,535	} Monetary conference in Brussels.
1892-3	39 $\frac{1}{16}$	14.985	-8,33,412	
1893-4	35 $\frac{5}{16}$	14.547	-15,46,998	Indian mints closed to free coinage. Repeal of the purchasing clauses of Sherman Act in the United States.

It will be seen from the above, that in the ten years 1883-4 to 1892-3, though there had been years of deficit and years of surplus, there had been on the whole, on a balance of ten years, a *surplus*; and this in spite of the fact that the expenditure chargeable to revenue had been swollen by various non-recurring contingencies, such as the cost of annexation and pacification of upper Burma, the expenditure on fortifications of the North-West Frontier and coast defences, equipment of the army with new rifles, and numerous punitive expeditions. During the same ten years Government had paid off, out of the *revenue*, a considerable sum towards the reduction of the permanent debt of India. Even if we take the *twenty* years ending 1892-3 we get a net deficit of less than Rs. 24,00,000, by no means an unsatisfactory record for a country like India.¹ In fact so competent a financier as Sir Robert Giffen remarked, 'So far as my judgment goes, Indian finance on the whole has been exceedingly prosperous . . . there are few countries in the world which can show such a record for twenty years or which have gone through these twenty years with so small a deficit in the aggregate. I think also, if the thing were looked into, it would be found that the permanent burden of India has not been increased in any substantial way even by borrowing for new works, but that considerable conversions of the debt have been effected.'

Even one of the official witnesses, Mr. Robert Hardie, Member of the India Council, admitted in his evidence before the Herschell Committee that, 'as a matter of fact the difficulties *so far* have not been very

¹ See the evidence of Messrs. Adams and Ralli before the Herschell Committee.

serious'.¹ His case was that the Government were 'apprehensive of greater difficulties in the *future* than had occurred in the past'. It was thus the *prospective* rather than the actual difficulties which made the Government so nervous. But even if these fears had materialized, was it not possible to meet the situation by retrenchment? Was it not within the range of practical politics to apply the pruning-knife, if not to civil expenditure, at least to some portion of the military expenditure, or to the expenditure on public works out of the revenue, which no one dreamt of so financing in England? This plain issue was cleverly evaded by the Herschell Committee as the following extract from their report will show: 'There is another way in which the deficiency may be met, namely, by reduction of expenditure. We are quite alive to the importance of this resource, and to the expediency of urging economy in every practical way, more especially as there is no pressure brought to bear on the Government of India as that to which the Chancellor of the Exchequer in his country is subjected by the representatives of the taxpayers. But difficult as it is for us to form an opinion on the possibility of raising additional revenue, it is still more difficult to estimate the possibility of reducing expenditure. In order to do so, it would be necessary to enter upon an examination of the policy and action of the Government of India, both in military and civil matters, *a task which is beyond our province*. Experience, however, shows, as regards military expenditure, that it is at all times difficult to resist its growth, and that occasionally the circumstances which call for it are beyond the control of any Government; while, as regards civil

¹ The italics are mine.

expenditure, an advancing civilization brings with it constantly increasing demands for Government action and enterprise, demands which are not the less urgent when, as in the case in India, they must originate with the Government, rather than, as in Europe, with the people. Although, therefore, we feel strongly the necessity for the utmost care in restricting expenditure, we are certainly *not in a position* to conclude that any economies are possible which would enable the Indian Government to meet successfully the great and growing deficit caused by falling exchange.'¹

Nor was it easy to accept the official view that Government could not increase taxation or that they could not find other means of meeting their gold obligations. As Sir Robert Giffen pointed out, the community in India—the *Government and the people together*—were not really affected in any way by changes in the value of their own money with reference to any foreign money in which their obligations had to be paid. The gold debt of the country was *really paid* by the remittance of *surplus produce* from India, the magnitude of which depended upon the yield of harvests, and the value for which the produce could be sold in the money obtained outside India. If, owing to the appreciation of gold, India was obliged to send a larger amount of produce than formerly to meet this debt, the case was one in which there *must be increased taxation in some form or other*. Either there must be new taxes or the old taxes must be made to command *more produce* by an *artificial enhancement of the value of the rupee*; in either case the final result was the same, there was an increase of taxation of the people

¹ The italics are mine.

of India of an entirely unavoidable kind. If, on the other hand, the case was one in which the *same* produce had to be sent from India as before, but the Indian Government were not able to command the same produce in consequence of the *depreciation* of their money, then what the Indian Government lost at the moment through their revenue being not sufficient to obtain command of the produce required to meet their gold debt, clearly amounted to a *remission* of taxation of equal amount to the people of India. The problem in that case was, *not* how to *increase* taxation as compared with what it was before, but how to make the taxation *equivalent* to what it was before. For that purpose new taxes would be necessary ; but that would not be new taxation on the community generally ; the burden of taxation after they were imposed would not be any greater than it was before the depreciation of the rupee had taken place. It was therefore difficult to accept the statement of responsible officials that new taxes could not be imposed.

Coming to particular items, it was easy to show that railway rates, which were charges for services done in the way of business, ought to have been capable of yielding much larger revenue if there was a real depreciation of the rupee. Then there were the import duties, which could easily have been trebled, for the Indian customs tariff was then one of the lowest amongst countries in a similar economic position—if only the Government of India had had the courage of their convictions. It was doubtful if the British House of Commons would have prevented the Indian Government from raising their revenue in this way, and taken the serious responsibility of compelling them to alter the monetary standard instead. But

even if these fears had materialized, it was the clear duty of the Government of India to have made a bold stand for a principle. The closing of the mints itself was not, according to the *theory on which the Government advocated it*, a *real escape* from further taxation of the people. It was more or less a political manoeuvre calculated to hide the real effects of the monetary changes. Had the sterling value of the rupee risen *through a rise in its purchasing power* in terms of commodities, the advantage to Government in their annual remittance to England would have been *paid for by the producer*, who would have been obliged to accept fewer rupees for the produce he sold. As Messrs. Campbell and John Muir forcibly pointed out in their dissenting note to the report of the Fowler Committee, 'to deny that arbitrary enhancement of the currency is a tax, and to argue that the producer is no worse off in the long run, that wages and other charges adjust themselves to its altered value, is to maintain the dangerous principle that Government may lighten their liabilities without injury to anybody by a step of this kind.' As a matter of fact, however, the rupee did not rise in purchasing power, except temporarily; and these consequences did not ensue. Nevertheless, the closure of the mints inflicted a serious loss on the poor Indian ryot. It produced a heavy fall in the value of silver as a commodity; it thus depreciated the value of the ryot's silver ornaments—the only form of savings known to him, the only provision he had made against famine times. Formerly under the open mints, he could easily convert his silver ornaments into rupees; he could no longer do so without incurring heavy loss. Formerly in times of scarcity and famine, a considerable quantity of silver ornaments

found its way to the mints. 'During the period of the great famine in 1877 and the following years, for example, large quantities of such ornaments were melted. In three years, no less than Rs. 45,00,000 were thus turned into money.'¹ These facts point unmistakably to the conclusion that even this, the most weighty argument against the silver standard, was hardly strong enough to justify the monetary revolution of 1893.

5. It is sometimes the practice with partisans of the gold standard to suggest, by a glowing description of the progress of India in the period following 1893, that the silver standard was an obstacle to progress. How little justification there is for this view will be clear from the following summary of a paper read by Sir W. Hunter at the Society of Arts on 16 February 1892.²

'Between 1881 and 1891 the whole number of the army has been raised from 170,000 to 220,000, and the number of British soldiers in it from 60,000 to 71,000, or, including reserves, volunteers, etc. to very much more. Many large and costly defensive works have been constructed both on the North-West Frontier, and on the coasts. In recent years almost all public buildings have been reconstructed on a large scale.

'Railways, both military and commercial, have been very greatly extended. Notwithstanding these extraordinary expenses, there were, during the twenty-five years which followed 1862, fourteen years of surplus, and eleven years of deficit yielding a net surplus of

¹ Herschell Committee.

² *Herschell Committee Report*, T. H. Farrer and R. E. Welby's Minute of Dissent, paras. 2-3.

Rs. 40,00,000. In 1889 the public debt of India, exclusive of capital invested in railways, showed a reduction, since the mutiny period, of Rs. 2,60,00,000. The rate at which India can borrow has been reduced from four or five per cent to a little over three per cent. The revenue of India, exclusive of railways and municipal funds, has grown between 1856-7 and 1886-7 from Rs. 3,33,78,000 to Rs. 6,28,59,000 and in 1891 it increased to Rs. 6,40,00,000 or including railways and irrigation receipts to Rs. 8,57,50,000, and this increase is due to the growth of old revenue rather than to new taxation. Further, whilst the rent or land tax paid by the people has increased by one-third, the produce of their fields has more than doubled, in consequence partly of higher prices and partly of increase in cultivation. Further, in 1891 there were nearly 18,000 miles of railway open, carrying 121,000,000 passengers and 26,000,000 tons of goods, and adding a benefit to the people of India, calculated as far back as 1886 at Rs. 6,00,00,000. Further, the Indian exports and imports at sea, which in 1858 were about Rs. 4,00,00,000 amounted in 1891 to about Rs. 20,00,00,000 and the produce thus exported has increased in quality and variety no less than in amount.'

6. But was the silver standard to blame in any way for the continuous fall in exchange with gold standard countries? Had *gold* become *more* valuable in itself, or *silver* *less* valuable in itself, or if both movements had happened, which had been relatively greater? This preliminary issue, though raised by Mr. Leonard Courtney in his dissenting minute, was not examined by the Herschell Committee. An examination of the broad facts of the situation, however,

leaves no doubt in the mind that the fluctuations in exchange rates were due, primarily, to an appreciation in the value of gold, and not to a depreciation in the value of silver.

In all the countries which had adopted the gold standard, a marked decline of prices had set in during this period, partly because of the enhanced demand of gold as currency, and partly because of a decline in the world's production of gold. Prices in England, for instance, fell by about forty-five per cent between 1873 and 1893 ; in other words, there was a rise in the value of gold, expressed in terms of its purchasing power not over one commodity like silver, but over a group of forty-five commodities. And this rise was continuous and rapid. Taking the year 1873 as the base for comparison, and expressing the purchasing power of gold over forty-five commodities in that year by 100, the corresponding figures for the years 1877, 1878, 1883, 1885, and 1887 as calculated by Professor Kemmerer, an American economist, are 128, 134, 135, 154 and 163 respectively.

It is interesting to note that prices fluctuated far more in England under the gold standard than in Shanghai under the silver standard, and that the general purchasing power of *gold* was *more unstable* than that of silver in England, India or Shanghai. Judged by the test of these facts, it was gold and not silver that lacked *stability*. And it was mainly because of this instability in the value of gold that there was a constant fall in the rupee-sterling exchange. No doubt, there was some decline in the value of silver also, owing to various causes, such as the demonetization of silver in most of the European countries and the continuous increase in the world's

production of silver. But taking the period as a whole, the purchasing power of the rupee varied much less widely than that of the pound. According to the calculations of Professor Kemmerer, 'for the pound, the extreme range of the index numbers was sixty-three points (100-163), while for the rupee it was but thirty-one points (103-72). Ignoring the worst famine year, that is 1878, the range for the rupee was but twenty-seven points (103-76).'¹

If then, stability of value in terms of general purchasing power and not in terms of a single commodity, however important, be an essential attribute of a good standard of value, the Indian currency system during the period 1872-93 satisfied that test better than the gold standard of European countries. At any rate, a standard which showed this stability did not deserve to be dismissed in the summary fashion in which the Herschell Committee condemned it.

7. There remains one other point to consider in connexion with the closing of the mints. The theory on which the proposal to close the mints was based was explained, twenty years later, by Sir David Barbour, the real author of the monetary changes, as follows: 'I was firmly convinced of the soundness of the *quantity theory* of money and knew that if the unlimited coinage of silver was stopped, it was quite possible to reduce the amount of the rupee circulation to such an extent as to bring the Indian exchange to a par with gold at a rate of exchange which could be permanently maintained. How great the necessary amount of reduction might be I could not tell.' The plan was variously called by its advocates, 'starving the

¹ Kemmerer, *Modern Currency Reforms*, p. 21.

currency', 'rarefaction of the currency', 'creation of scarcity value', and 'relative contraction of the currency'.

Do the facts of the period 1893-8 show that the rise in exchange actually brought about was due to this relative contraction of currency and the consequent *increase* in the purchasing power of the rupee? The relevant facts to note in this connexion are :—

(1) The *rise* in the value of the rupee as measured by its purchasing power over commodities immediately after the closing of the mints, the index number of prices in India falling from 129 in 1893 to 120 in 1895.

(2) The *fall* in the average exchange value of the rupee from 14·546*d.* in 1893 to 13·638*d.* in 1895.

(3) A heavy *depreciation* in the purchasing power of the rupee during the years 1896 and 1897, its index number of prices being 131 in 1896 and 153 in 1897.

(4) The *rise* in rupee-sterling exchange from 13·638*d.* in 1895, to 14·450*d.* in 1896 and 15·406*d.* in 1897.

These facts lend no support to the claim that the closure of the mints raised exchange rates through its effect on the general purchasing power of the rupee. There is, moreover, reason to believe that in spite of the closing of the mints, there was very little 'relative contraction of the currency'. Apart from a decline in the amount of goods sold because of famine in 1896-7, and a small expansion of circulating bank credit during this period, the monetary circulation was actually increased in three different ways. Firstly, under an Act of 17 December 1896, twenty million rupees were released from the Paper Currency Reserve and put into circulation by the end of March 1897. Secondly, Government spent large sums in relief work out of their

cash balances with the result that the treasury balances were reduced from Rs. 185·3 millions in 1894-5 to Rs. 99·7 millions in 1896-7. Lastly, large amounts of rupees were withdrawn from hoards and put into circulation. It is plain that the rise in exchange in these circumstances must have been due to causes *other* than 'rarefaction of currency'—a fact practically admitted by the Fowler Committee, as the following extract from their report will show : 'In the first place, we desire to point out that it has not been proved that the rise in the value of the rupee since 1894-5 is due solely to relative contraction of the Indian currency ; and it may be that it is not mainly to this cause. It is not certain that there has been any contraction of the Indian currency which has materially affected the exchange, though it may not unreasonably be inferred that there must have been some contraction, and that such contraction has had some influence on the exchange value of the rupee. On the other hand, there are causes other than contraction of the currency which affect the value of the rupee and the exchange with London. *Large borrowings* in London on account of India, *reduction in the drawings* of the Secretary of State, an *increase in the exports from India unaccompanied by an equivalent increase in imports*, as well as *a general rise in gold prices*, would all affect the rate of exchange with India, though it is quite impossible to estimate the relative importance of these factors among themselves, or the amount of their influence on exchange as compared with the effect of a contraction of the currency, or to state the precise degree of influence which any, or all of them, have had on any particular alteration in the exchange. Nor, on the other hand, is it certain that

the unusually low rate of exchange that prevailed in 1894-5 was due solely to a relative redundancy of the Indian currency. The closing of the Indian mints necessarily brought into play many disturbing influences which may have affected the exchange in 1894-5.

‘ Since the mints were closed there have also been *large borrowings* on Indian account, and there have been, in some years, *large reductions* below the normal amount in the *public remittances* from India, while fluctuations have been experienced in the foreign trade of India, due to famine and plague as well as the other causes. All these causes must at different times have affected the exchange either favourably or unfavourably.

‘ Another influence which must have had a favourable effect on the Indian exchange was the *reduction in the imports of silver* due to the closing of the mints. The average yearly net import in the three years preceding the closing of the mints was 43,133,678 ounces, of the value of Rs. 1,20,20,296 ; and for the three years ending 1898-9, the average net import was 31,126,376 ounces, of the value of Rs. 61,03,431.

‘ In the face of these facts which we have just stated, we are unable to accept, without qualification, the opinion that the rise in the value of the rupee since 1894-5 has been due wholly, or mainly, to relative contraction of the Indian currency. We are not prepared to say that the contraction of the Indian currency has not been an important factor in the rise in the Indian exchange ; but so long as the facts of the case are surrounded by so much obscurity, we consider that it would be unsafe to base action of so drastic a character on this assumption.’

In spite of the apparent anxiety of the Committee

to adopt a non-committal attitude on the point, this passage discloses clearly a recognition on their part of the fact that there were *other* important causes at work which all tended to raise exchange. That some at least of these causes were *sufficient by themselves* to account for the rise in exchange, was practically admitted by Mr. J. F. Findlay, Secretary to the Government of India, in his cross-examination before the Fowler Committee, as the following extract from his evidence will show:—

Q. 2836. Now I want to go back again to the borrowings. I have got here an abstract of the figures taken from the India Office return. In 1894-5 the Government of India paid off Rs. 11,72,338 of debt; in 1895-6 they paid off Rs. 5,84,812; in 1896-7 they borrowed Rs. 33,26,125, that is, exclusive of the two millions from the Currency Reserve; in 1897-8 they borrowed Rs. 26,75,000. In addition the Government received the following sums from railway companies: in 1895-6, Rs. 1,63,800; in 1896-7, 3,28,200; in 1897-8, 7,04,800; and in 1898-9 estimate 14,40,000. Then, as regards borrowing, the Government and the guaranteed companies raised in 1894-5, £2,339,765 (that is in London). Then in 1895-6 they raised £939,133. In 1896-7 they raised £2,720,901. Then in 1897-8 they raised £10,138,281. In 1898-9, £488,300. The companies that were not guaranteed raised in those years the following sums: in the calendar year 1894, £475,927; in 1895, £698,385; and in 1896, £1,849,444. I have not got the figures for the two following years; but in 1897 for the six months up to 30 June they raised £463,037, and this year also they intend to raise a considerable sum. *Now do you think that the borrowing is sufficiently large to account for an appreciable proportion of the rise in exchange that has taken place since 1894-5?—Certainly.*

Q. 2839. Since the mints were closed, the average (of imports of silver) fell off from an average of about Rs. 1,20,00,000 yearly to about Rs. 60,00,000—Yes.

Q. 2840. That is a reduced import into India of Rs. 60,00,000—Yes.

Q. 2841. *That would have an appreciable effect on exchange?—It would.*

The course of events in subsequent years shook the confidence even of officials in the theory. The connexion between exchange and the quantity of money in circulation in India was denied by no less an authority than Sir Lionel Abraham in his evidence before the Chamberlain Commission. Asked if the 'great trouble in Indian exchange arises from the fact that there is such an enormous volume of token coins in circulation', he replied, 'That is a view which has often been put forward, but which I find the greatest difficulty in accepting. *I think the connexion between the volume of token coinage and the stability of exchange is very remote*, as indeed is shown by the fact that now, at this moment, the token coinage is of greater volume than even before, and I think one might almost say that exchange is more stable than it has ever been. According to my view, as I tried to put it in an answer to another member, the stability of exchange depends on *trade conditions*, and the trade conditions may be affected, I admit, but are slowly and indirectly affected, *if at all*, by changes in the volume of currency.'

¹

This again is perhaps going too far in the other direction. The truth is, as already shown in another work,² that exchange depends, not on the price-level in one country, but on *relative* price-levels, measured in prices, not of *all* commodities, but of only those commodities which enter into international trade. And although India's imports and exports are large, still, in the main, the *inland prices* of products on which the majority of the people live, have no close connexion with foreign trade, gold, and gold-exchanges. The correct doctrine was explained by Professor Marshall

¹ The italics are mine.

² *My Indian Currency, Banking and Exchange*, pp. 44-66.

in his evidence before the Fowler Committee as follows:—

Q. 11788. What do you take to be the general relation between the Indian exchange and prices in India and England?—India is so large that prices at her ports differ widely from up-country prices; and partly for this reason *much of the produce of India is very little connected either as cause or effect with the course of trade*. But, broadly speaking, the Indian exchange, both before and after the closing of the mints, has indicated the proportion *between rupee prices at Indian ports and sterling prices at English ports*; and, subject to allowance for freights etc. between India and England, the rule holds that the exchange or the gold price of the rupee is the ratio of sterling prices to rupee prices

Q. 11789. You say 'speaking generally the Indian exchange is the ratio of sterling prices to rupee prices at the ports'. Will you kindly amplify that?—The Indian exchange is quoted as the sterling price of the rupee, that is, as the price in London of the command of a rupee's worth of goods in Calcutta or Bombay. If the exchange is not by telegraph, something must, of course, be allowed for interest. It is worth the while of an English importer of, say, jute, to pay this price for a rupee if the jute that he can get with a rupee will sell *net* in London for this price. By *net* is meant after paying all the expenses, that is including insurance, interest for the time the capital is locked up in transit and remuneration for himself. Thus Indian exchange is the ratio which the sterling price of jute, after allowing for freight, bears to the Indian price. In the same way, the exchange is the ratio that the sterling price of calico bears to the Calcutta price after allowance is made for freight etc. The details of this had, perhaps, better be taken separately for the case in which the imports of silver directly affect the currency of India, and the case in which they do not. The latter case is really the simpler.

Q. 11790. Now, will you say how this works out?—Since the mints were closed, the currency of India has consisted of Government notes printed on silver. Their value is governed in the main by their amount relatively to the work which they have to do, account being taken of the fact that apprehensions

as to the stability of value of such a currency will affect the amount of the purchasing power which people care to keep directly or indirectly in the form of currency. The Indian exchange is then governed by the relation between gold prices and rupee prices, being in fact, an expression of the ratio between them.

As I have explained,¹ the relative price-levels determine only the *normal* rate of exchange. Deviations from the normal are possible on many grounds, one of the most important being the *balance of accounts*. The peculiarity of the Indian system has been that the balance of accounts has been repeatedly turned in favour of India on account of *heavy and continuous borrowing* in London so that what would have been, in absence of a change in the relative price-levels, only a temporary phenomenon, has *appeared* to be a normal feature. But the fundamental cause at work has throughout been the ratio between the price-levels at the ports.

¹ My *Indian Currency, Banking and Exchange*, loc. cit.

CHAPTER II

THE ISSUE BETWEEN THE FOWLER COMMITTEE AND THE CHAMBERLAIN COMMISSION

1. The next stage in the history of the Indian currency system comes with the report of the Fowler Committee, appointed in 1898. This committee looked forward to the 'effective establishment of a *gold standard and currency* based on the principles of the free inflow and outflow of gold', and so were in favour of 'throwing the Indian mints open to the unrestricted coinage of gold on terms and conditions such as govern the three Australian branches of the Royal Mint'. In the next ten years the Indian currency system, however, developed along lines which were materially different from those suggested by the Fowler Committee, but which were subsequently approved of by the Chamberlain Commission in 1913.¹ The majority of this commission subjected the proposals of the Fowler Committee to searching criticism, and arrived at the conclusion that 'it would not be to India's advantage to encourage an increased use of gold in the internal circulation'. This authoritative approval of the existing system gave a serious set-back to the proposal for establishing a gold currency in India, which was regarded even in official circles as late as May 1912, as 'the logical and natural consequence of the closing of the mints to silver and as the necessary accompaniment of the establishment of a gold standard'. The decision of the

¹ See my *Indian Currency, Banking and Exchange*, pp. 72-4.

Commission was thus a challenge to widely accepted views, and consequently gave rise to a prolonged controversy which has not yet been laid to rest. It is necessary therefore to note the main points at issue.

Some of the main arguments in favour of a gold currency were summed up by the Chamberlain Commission as follows: '(1) That gold is a more convenient and portable medium of circulation than the rupee ; (2) that gold currency is a necessary step towards what may be regarded as the ideal currency, namely, paper backed up by gold in reserve ; (3) that some prestige attaches to the possession of a gold currency, whereas a silver circulation is the mark of less progressive peoples ; (4) that a large amount of gold in circulation is a strong, and in the view of some people, the only adequate support for exchange ; (5) that the constant mintage of fresh supplies of rupees is objectionable, and would be obviated by an increasing circulation of sovereigns ; (6) that until India has a gold currency in active circulation, India will continue to possess an artificial and managed currency.'

Each of these arguments was criticized severely in the report signed by the majority of the Commissioners ; and their adverse criticism in its turn called forth a well-reasoned rejoinder from Sir James Begbie, the only dissenting member. It is best, therefore, to take up each of these arguments separately so as to bring out clearly the points of difference between the opposing views.

2. The first point raised the important question as to the *real preference* of the public. Both sides were agreed on the general principle that the extent to which a particular coin should be put into circulation,

'must be decided solely in accordance with *India's own needs and wishes*', and that 'it would be unjust to *force*' gold or rupees in circulation in India. But, while the majority held that 'India must continue for many years to use rupees for payment of the *small amounts* which form the *bulk* of *internal transactions*', the dissenting member laid stress on the fact that 'the public had absorbed during the last twelve years approximately *equal* amounts of rupees and sovereigns', and that the '*demand* for sovereigns had rapidly *increased*' during the preceding four years, and contended that 'these recent gold requirements showed an important change in the currency needs of the people', and indicated '*a preference for gold over rupees*'. The question therefore resolved itself into one of interpreting rightly the significance of the figures relating to the amount of gold absorbed into India. Mr. Keynes, one of the members of the Commission, took up the position that the gross figures of gold imports into India were not at all *relevant* to the question, as part of that amount was used for ornaments, part for hoarding, and part was melted down, and that it was only the part that was employed as *currency* that could show the preference of the public for gold currency. He contended that the evidence, such as was available, went to show 'the existence in India . . . of an enormous demand for *gold bullion*, a very considerable demand for sovereigns for the purposes of *hoarding*, and a *relatively smaller* demand for them, chiefly confined to the United Provinces, the Punjab, Madras and Bombay, for purposes of *currency*'.

A fair-minded reader of this evidence will find it difficult to resist the conclusion that the interpretation put by Mr. Keynes on the available statistics is really

the right one. Common observation, as well as the known poverty of the bulk of the people, alike support the view that the bulk of internal transactions in India will continue, for a long time, to involve small amounts for which gold will hardly be a suitable coin. Even, the majority of the Fowler Committee, who declared themselves in favour of making the British sovereign a legal tender and a current coin in India, had no illusions on the point; they frankly admitted that 'there was little or no likelihood, even according to the most sanguine view, that for a long time to come gold coins, even if declared a legal tender forthwith, would find their way to any great extent into general circulation'. Indian publicists spoke from the platform of the Indian National Congress (1898) in a similar vein, and in the words of Sir D. E. Wacha, 'For consider how you may, you cannot help admitting the fact that, bearing in mind the poverty of the people and their immemorial habits and usages, gold can never become the currency. Silver alone is suitable and convenient. It is the natural currency.' And several witnesses before the Fowler Committee pointed out that 'for the man in the street and the man in the village or the village shop, a gold coinage would be absolutely useless'. Again, if the history of the past is any safe guide in such matters, the figures of gold and silver coinage during the period 1801-35, a period when gold was coined freely, and both gold and silver were legal tender—a period which is often referred to by the advocates of gold currency as showing the popularity of gold coinage—seem to support the contention of Mr. Keynes, for during these years, while the silver coinage amounted to £63,631,833, gold coinage was only

£11,060,148.¹ We have no further statistics to rely upon except those commented on by Mr. Keynes, as the figures since 1914 lead us nowhere, owing to the abnormal conditions prevailing since then, and the almost universal restrictions on the free movements of gold during the greater part of the War and the post-War periods.

This line of reasoning is, however, not as conclusive as it may appear at first sight. As Sir James Begbie pointed out, an extensive token currency 'has the usual effect of driving gold *out of circulation*'. No fair inference as to the public preference for gold can therefore be safely drawn from the small amount of gold in circulation *under such conditions*.

Nor is it proper to draw any very sharp distinction between the sovereigns hoarded and those in active circulation. The so-called hoards may be used as money more often than the term is usually held to imply.²

Similarly, one cannot rely absolutely on the argument based upon the poverty of the people of India. We may on this point cite the high authority of Professor Marshall, who, in his evidence before the Gold and Silver Commission, said, 'It is commonly said that poor districts would not be likely to use much gold. That may be so but there is *no certainty about it*. The use of gold seems to depend on habits which are not easily traced and measured statistically, but which are perhaps closely connected in some parts of the world with the hoarding of gold. For instance, more than eighty per cent of the value of coins in circulation in some of the

¹ See *Chamberlain Commission Report*, vol. II, Appendices, p. 622.

² See Mr. Howard's note of evidence to the Chamberlain Commission.

poorest parts of France consists of gold, while in some of the richer districts the value of gold in circulation is less than that of silver.'¹

The truth is that the public preference for one coin to the other can be conclusively proved only when the *public is free to convert* one into the other. The rupee in India was not freely convertible into gold during the period on which Mr. Keynes relied for his figures ; the absorption of a large amount of rupees as currency during that period does not therefore negative the idea that the public would have converted them into gold if they had been free to do so. If Government were sure of the fact that the public preferred rupees, there was no risk whatever in making the rupee freely convertible into gold. The unwillingness of Government to assume a positive obligation for the convertibility of the rupee *internally* raised a presumption that Government feared that the public would prefer gold to rupees as internal currency. The only decisive rebuttal of the critic's case lay in the bold assumption by Government of this obligation to convert rupees into gold ; but this the Government had all along declined to do.

Nor was *the real contention* of the critics of the Indian currency system *fairly met* by this line of argument. No one grudged the rupee the position which cheques or notes occupied in advanced European countries. The real point to which the critics were driving was an arrangement under which the rupee would be freely convertible into gold, just as cheques were in England and notes in Continental countries. Only a minute fraction of the population in

¹ *Gold and Silver Commission Report*, Minutes of Evidence, Q. 9674.

European countries had any occasion actually to handle a gold coin ; and yet nobody had ever suggested that on that account cheques and notes should be declared inconvertible into gold. Similarly, the masses in India might continue to use silver currency in their everyday life ; but that was hardly a reason for refusing them the right to have their token coins converted into gold when they wished to do so. Again, if the bulk of transactions involve only small amounts, why need the rupee be *unlimited* legal tender at all? No advocate of a gold standard and a gold currency ever objected to the popularity of the rupee as the chief *medium* of exchange, if it were only limited legal tender or freely convertible into gold. The argument of Mr. Keynes was no answer to contentions like this. But for this evasion of the real points at issue, the confusion in the minds of the advocates of gold currency was not a little responsible ; they failed on the whole to make their position clear.

3. In refutation of the second argument, the majority attempted to show that history gave no support to the view that a paper currency could only be reached after a gold currency had been in circulation, and urged that 'a paper currency, if readily encashable, is the most economical medium of exchange and at the same time provides a readily available reserve of gold for foreign remittance'.

No exception could possibly be taken to this general statement, but a critic may fairly deny its applicability to the Indian currency system. The Indian currency note was readily encashable *not in gold* but in *rupees*, which were practically inconvertible notes printed on silver. In effect, it was very much therefore on a par with inconvertible paper currency—

by no means the best means of educating people in the use of more economical forms of currency than gold. Nor did the system provide a readily available reserve of *gold* for foreign remittance, as quite a substantial part of the Paper Currency Reserve consisted of silver, rupees and securities.

Far from educating people properly in monetary matters, Sir James Begbie rightly contended, the present system had just the opposite effect. It kept gold out of useful employment. People who prized gold so highly as to store and hoard it were not likely to invest it so long as they had to take the risk of being repaid in token coins. What was needed was 'not education in the use of economical currency so much as education in the use of store of gold'; and this was not possible so long as there was an extensive and expanding token currency. 'A currency in which gold was a more prominent feature and to which token coins were less freely added, would be more practical as an educative force. Gold coins would be suitable and convenient for many ordinary currency purposes, and by using them the public would be gradually led to use gold for the other purposes, such as investments, especially if a considerable circulation of gold existed, sufficient to inspire the public with confidence that when they wanted their gold restored to them they could get it.'¹

4. As regards the third argument, the majority drew a distinction between a *gold standard*, which, they admitted, had become a mark of progressive people, and 'a *gold currency* in the sense of a preponderating use of gold for internal exchanges', which, they

¹ Sir James Begbie's Minute of Dissent.

contended, was not a characteristic of a single one of the great powers of the world, all of whom used either cheques or notes for internal transactions. In their opinion, the Indian currency system was not in actual practice different from pre-War the currency systems of such countries as Russia, Holland, Japan, or Austria Hungary, for 'in these countries as in India, gold actually in circulation is of secondary importance, and the internal medium of exchange, whether it be a silver coin or a paper note, depends for its value in exchange, not on its own intrinsic worth, but on the maintenance in reserve of gold or resources readily convertible into gold, and, in the case of Russia and Japan at any rate, large portions of gold resources are held not at home, but in London, Paris, and other monetary centres, just as India's Gold Standard Reserve is held in London.'¹

The dissenting member, on the other hand, considered such analogies 'unsafe as a guide to Indian policy because the conditions were not identical'. 'In none of the countries', he pointed out, 'is there the same private absorption of gold that there is in India. Whatever experience elsewhere may be, the recent demands for gold in India show a loss of confidence on the part of the public in the token coin, and that is a situation that cannot be ignored.' Thus, on analysis, we come back to the vital question of the public preference for gold or silver, which we have already discussed at length.

5. The fourth argument called for a somewhat elaborate comment from the majority. They admitted that a considerable quantity of gold would be available

¹ *Chamberlain Commission Report*, para. 51.

for export at times of weak exchange, if gold were used in active circulation to the same extent as it was in Egypt; but pointed out that this was not possible, unless a large amount of rupees was withdrawn from circulation, and the note-issue reduced to a comparatively insignificant position. If, however, all that the advocates of a gold currency really contemplated was an addition of gold coins to the *existing* circulation of notes and rupees, the Commissioners feared that the policy of popularizing gold as currency, instead of helping exchange, might jeopardize it. For gold, in that case, would for many years to come occupy only a subsidiary position in the Indian currency system, and it would be the surplus rupees and not the gold in circulation that would seek an outlet in time of depressed trade and weak exchange. The only effect of infusing more gold into circulation would be to weaken the Government reserves of gold; if gold replaced rupees, the Gold Standard Reserve would cease to grow; if it took the place of notes, the Paper Currency Reserve would be diminished.

In the opinion of these Commissioners, the view that gold in active circulation was a support to exchange, was based on a misreading of the currency history of modern England or Germany. 'The ability of these countries to meet at all times their immediate foreign indebtedness', they went on to say, 'depends on the *central reserves* of the banks of these countries, on the *influence* exerted by these banks on the other constituents of the *money-market*, and on their *bank rate* policy. It is not possible to point to any occasion in contemporary history on which *sovereigns in the pockets of the people* have proved a resource on which to count for easing the situation when a monetary

crisis threatens the Bank of England's gold reserve. . . . It is useless to suppose that the advantages of the existing monetary system of the United Kingdom can be obtained for India by imitating what is, perhaps, the *least vital part* of this system, namely the use of sovereigns for that small class of payments which are made in actual cash, while ignoring the nature of the *complex banking and financial system* upon which the stability of exchange really rests.' ¹

Sir James Begbie, on the other hand, contended that though gold in reserves was better than gold in circulation for the support of exchange, gold in circulation was a better protection for exchange than token coins. Moreover, reserves of gold could be accumulated from a gold circulation through the note-issue and a good banking organization. 'Even under the existing system', he pointed out, 'the most satisfactory part of the gold reserves is the gold in the Paper Currency Department. The full equivalent of the currency issued against it is saved in gold for the reserve, whereas the Gold Standard Reserve represents only about one-third of the token currency from which it was saved, and will redeem only that proportion of it, unless the extreme step is taken of melting down rupees. Also, a considerable portion of the coin reserve of the Note Department must be held in rupees at present. With a free circulation of gold a much smaller portion can be held in rupees and a correspondingly larger part in gold.'

To these considerations we may add two more points. The majority rightly laid great stress on adequate banking and currency *reserves in gold*, as supports

¹ The italics are mine.

to exchange. But was it not idle to expect the banks to keep their reserves in *gold* bullion or coin when silver was the ordinary currency of the country? Were not Government under the existing system taking upon themselves the entire burden of keeping adequate gold reserves for foreign drain, part of which at any rate was likely to be shifted to the banking organization of the country under a system of gold currency with rupees as *limited legal tender*?

It is again quite legitimate for the advocate of a gold currency to contend that the paper currency will command greater confidence among the public when it is legally convertible into gold than it does under the existing system, when it is encashable freely only in token rupees. He may well argue that, far from depleting the Paper Currency Reserve, the establishment of a gold currency would in the long run give India a much stronger Paper Currency Reserve in gold, owing to the greater popularity and expansion of the note-issue.

We may then fairly conclude that reason and logic on this point were more on the side of the advocate of gold currency than on the side of his opponents.

6. The majority, in their examination of the fifth argument, pointed out its close connexion with the preceding one, 'for the possible danger to exchange of a very large circulation of token' was the main ground of this objection, and expressed their conviction that the increased use of sovereigns as currency was 'almost certain in the long run to militate against the use of notes', as in many respects gold was 'a far more formidable rival to the note-issue than to rupees'.

There is no doubt there was an element of truth in

this view. So long as confidence in the note-issue was not fully established in India, people would continue to prefer gold to notes. But this preference for gold would be very much less if notes were declared convertible into gold, rather than in artificially valued rupees. The greater convenience of convertible notes was bound to tell in the long run; and, as Sir James Begbie pointed out, 'notes will usually be preferred to coin—whether gold or silver—for such purposes as bank cash reserves and frequently for effecting remittances.' The establishment of a gold currency would bring India nearer the stage when notes would be convertible into gold, and would thus tend to increase public confidence in the note-issue rather than diminish its circulation.

7. The sixth argument in favour of a gold currency evoked from the majority a rather spirited protest. They thought that 'the only point of the criticism that India's currency system is managed in a sense that is not true of the currency of the United Kingdom, lies in the fact that the rupee is a token passing at a value above its intrinsic value, and at the same time is unlimited legal tender'. Except in this respect, the pre-War Indian system appeared to them as automatic as that of the United Kingdom, for in their opinion there was no essential difference 'between the power to import sovereigns at will and the power to have gold coined into sovereigns in India'. They denied that the Government of India had any power to 'manipulate the currency for their own ends' or 'add to the active circulation of the currency except in response to public demands'.

This was practically a re-echo of the views expressed by Mr. Keynes in his book *Indian Currency*

and Finance. He had warmly protested against the idea that 'the volume of currency in circulation depends upon the policy of the Government or the caprice of an official', and contended that in case the Secretary of State did not sell Council Bills in response to the demands of trade, people would import sovereigns into India, demand from Government rupees in exchange for them, and so effect the same increase in the volume of currency as would have been caused by the sale of Council Bills.

It is not difficult to see the fallacies involved in this line of reasoning. Under the pre-War exchange standard the currency of India was expanded, not in response to the demands of trade as a *whole*, but only of a part of that trade, namely *external trade*. If during any period the balance of trade in favour of India increased rapidly, the sale of Council Bills received a stimulus, and the amount of rupees or notes in circulation was augmented thereby out of all proportion to the real increase in the *total trade* (external and internal), for the internal trade does not necessarily grow in proportion to the growth in India's favourable balance of trade. Thus the system increased the total purchasing power much more than a real automatic system would have done.

Even this statement needs an important qualification. India is a land of seasons; and it was only in the busy season that there was a keen demand for Council Bills, necessitating fresh coinage or further issue of paper money. Thus the currency of India was expanded, not in response to the growth in external trade *throughout the year*, but only in proportion to the

demand for funds for financing export trade *during the busy season*.¹

The truth is that the idea underlying the whole system, that the *rate of exchange* is the test of deficiency or redundancy of the currency, is wrong and mischievous. Exchange may be the measure of the temporary requirements of *foreign* trade, but it is the *rate of discount* that is the proper index to the temporary requirements of India's *internal* trade. Exchange may show the scarcity or abundance of currency in one country as compared with another; but it is the fall or the rise in the *price-level* of a country that reveals the insufficiency or redundancy of the currency for the *normal* requirements of its total trade. In this connexion it is interesting to note the following admission made by Mr. M. M. S. Gubbay, formerly Controller of Currency in India :—

‘The point I want to make clear is this. It is rather counter to what we used in the Finance Department to observe—the rise in the rupee exchange has always been coincident with a rise in the value of money. We used formerly to see, while money was tight, a rise in exchange; and we used to say, “Exchange is rising, and therefore money is tight, and is going to be tight”, but I have not found that so much of later years. I find a demand for exchange, but not necessarily high money rates for temporary money—for call money, or weekly money, or monthly money.’²

The argument of the apologists of the pre-War system seems further to assume as an axiomatic state-

¹ See the evidence of Mr. Donald Graham and Lord Abraham before the Fowler Committee.

² *Hilton Young Commission Report*, Minutes of Evidence, Q. 12506.

ment that Government could not coin rupees except in exchange for gold. That this is not a correct statement of fact was brought out clearly in the cross-examination of Sir James L. Mackay (now Lord Inchcape) before the Fowler Committee, as the following extract will show :—

Q. 268. (Sir David Barbour) I think the Government have power at present to coin rupees if they like?—They have the power of coining rupees and issuing them to the public in return for gold.

Q. 269. But the Government actually did coin rupees out of the silver taken over from the banks?—Yes.

Q. 297. Am I right in taking your sentence as meaning that there is no power in India for issuing full legal tender except against the payment of gold?—That is so.

Q. 299. But the Government can coin silver which they take over from the banks, and even when old rupees come in the Government can re-coin them?—Of course.

Q. 304. (Lord Balfour of Burleigh) On the last point on which there was some discussion, it is the fact, is it not, that under whatever power it was done, the Indian Government did accept for coinage silver to the value of about two crores?—Yes, they did that by executive order.

These revelations only served to emphasize the force of the following remarks made by the Lord Commissioners of the Treasury on the proposal for closing the mints in 1886: 'The proposal appears open to those objections to a token currency which have long been recognized by all civilized nations, namely that instead of being automatic, it must be "managed" by the Government, and that any such management not only fails to keep a token currency at par, *but exposes the Government* which undertakes it to very serious difficulties and *temptations*.' It is hardly necessary to repeat that few temptations are more difficult for a needy Government to resist than the temptation to inflate the currency.

So far only one side of the working of the pre-War Indian currency system has been noticed, the way in which it increased the volume of the currency. But a satisfactory system of currency is automatic in the reverse direction also. In gold-using countries before the War, gold coins were easily exported, or melted and withdrawn from circulation, when trade was slack. This automatic process of contraction was all along wanting in the Indian system. *Legally* the rupees were never freely convertible into gold inside the country; nor were they externally convertible except on those rare occasions when Government sold Reverse Councils at times of weakening exchange. And exchange, as we have already seen, is capable of being influenced by many factors other than internal conditions of trade. Trade may be depressed, and currency may be redundant, and yet heavy and continuous borrowing on the part of India may reverse the tendency to weak exchange and make recourse to Reverse Councils unnecessary. Prices may rise in India, and yet exchange may not only remain stable but even *rise* because of *inflation* in *other* countries.

It is true that the rupee was not absolutely inconvertible into gold inside the country in pre-War days, for the Indian Government did at times offer gold for rupees. But there are all degrees of inconvertibility. The very essence of the gold-exchange standard implies, according to one of its best exponents,¹ 'some degree of *unwillingness* to supply gold locally in exchange for the local currency; but a high degree of willingness to sell foreign exchange for payment in local currency at a certain maximum

¹ J. M. Keynes.

rate'. This in itself means some *inconvertibility* in practice. But even if the rupee were a *convertible* note printed on silver, its *low denomination* would to some extent make it *de facto inconvertible*. Add to this the fact that, against this note, printed on silver, Government kept no reserves in *gold* to ensure its convertibility, apart from what they considered necessary for supporting the paper currency notes and the foreign exchange, and the degree of its convertibility becomes all too patent. The rupee at best had only an 'imperfect or impeded convertibility',¹ and its over-issue was on that account just as likely as that of inconvertible notes.

Later experience has conclusively proved that even when Reverse Council Bills were sold, it did not necessarily follow that the currency was contracted to the *full* extent of the amount of reverse bills sold. There being nothing in our pre-War system to enforce contraction of currency concurrently with the depletion of the reserves, everything depended on the discretion of Government.²

The Commissioners' line of reasoning is open to another serious objection. They seem to have taken it for granted that it was a matter of indifference to the London money-market if gold actually flowed into India from London, and that the cessation of the sale of Council Bills would not affect the very trade-demand in response to which they were supposed to be sold. Such an assumption does not appear to have been warranted by facts. Gold has never been so abundant in London that ten or fifteen millions could be drawn from it, during the busy season, without affecting its discount rate and creating a stringency in its money-market.

¹ See Nicholson, *War Finance*.

² See *Hilton Young Commission Report*, para. 16.

Even the official witness, Mr. J. E. O'Connor, was forced to admit before the Fowler Committee the connexion between the Secretary of State's drawings and the activity of the Indian export trade, and said in his cross-examination, 'I do not know how the thing comes about, but we know that it has happened on *every* occasion when the Secretary of State's drawings have been suspended, that the export trade has been suspended; export business has ceased for the time being.' It is significant to note in this connexion, the extreme solicitude for the interests of the London money-market betrayed by Mr. Lindsay, the originator of the gold-exchange standard in India. When asked by Sir David Barbour if he thought that the establishment of a gold currency would lead to an injurious appreciation of gold, he replied as follows: 'I think myself, that the two uses of gold combined—for hoarding and for internal circulation—would be so enormous that it would *create a serious disturbance in the London money-market.*'¹ His further cross-examination revealed the same anxiety:—

Q. 4232. Now you say that, under the system proposed by the Government of India, if gold circulated in India, there would be heavy *withdrawals*, every busy season, of gold from London?—I should have said that there is a risk of heavy withdrawals during any time of active export trade.

Q. 4233. Do you think that gold would go back again or remain in India?—I think that gold to a great extent would remain in India.

Q. 4234. Would not there be the same or a similar demand for gold in London under your scheme in a busy export season? People would pay in gold at 1s. 4 $\frac{1}{4}$ d. in order to get rupees?—The difference would be this, that *gold would not* be drawn

¹ *Fowler Committee Report*, Minutes of Evidence, Q. 3593.

from London for currency purposes in India. The gold would be transferred from certain accounts in the Bank of England to the Gold Standard Office account, and in the autumn here, that is in the slack season in India, a re-transfer would take place; but *the gold would not leave the Bank of England for currency purposes in India.*

Q. 4236. You would propose then, that the gold paid into the Gold Standard Reserve should not be set aside specially to meet claims against it, but that it should be merged in the general balance of the bank which it might use for any purpose?—Yes, that would be the best way. *There would be no disturbance then of the London money-market.*

A similar admission as to the real effect of selling Council Drafts was made by Mr. F. W. Newmarch, Financial Secretary, in his memorandum to the Chamberlain Commission. Among the advantages claimed for the practice of selling Council Bills to meet the convenience of trade he mentioned the fact that 'it serves, sometimes, to avert *extreme stringency* in the London money-market which would be created if the Secretary of State, by refusing to sell drafts for the convenience of trade, forced large quantities to be taken from London for India'.¹

The majority emphatically asserted that the Government could not manipulate the currency for their own ends. But, as Professor Nicholson had rightly pointed out, 'the very *basis* of the whole system is that Government adopt the system so as to secure stability of exchange *for their own convenience*. The mints were closed to raise and maintain the exchange, and the complex arrangements for keeping a reserve, and the nature and the *locale* of that reserve, *have all been guided by the ends of the Government*. So long as the rupee maintained its value in gold payable in London,

¹ *Chamberlain Commission Report*, Appendices, vol. I, p. 223.

the rest of its monetary functions were either not considered at all, or were supposed to follow by some kind of pre-established harmony inherent in the gold-exchange standard.’¹

Finally, the pre-War Indian currency system was managed in the sense that it impeded the automatic working of the natural correctives to favourable and unfavourable exchange.² When the United States has a favourable trade balance and gold flows from London to New York in adjustment of this balance, gold prices tend to *rise* in the United States and *fall* in England. This stimulates exports from England to the United States and tends in its turn to bring about a rate of exchange favourable to London. When India had a favourable trade balance, the sale of Council Drafts tended to raise prices in India but did not produce a fall of prices in England, as gold did not leave England. The force of this contention was recently admitted by Sir James Brunyate in the following extract from a statement submitted by him to the Hilton Young Commission: ‘It would seem also that a correctly operating system for remedying exchange weakness should *not only be deflationary in its local effect, but inflationary in its external effect.* This requirement is not met by the issue of credits. It would be met by the export of gold except in so far as it may be the policy of receiving countries to regulate the expansion of credit independently of the state of their gold holdings.’³

¹ See op. cit.

² See the evidence of Mr. Morton Frewen before the Chamberlain Commission.

³ *Hilton Young Commission Report*, Appendix 76.

The examination of this controversy thus leads to the conclusion that, except on the vital question of public preference for the rupee as a convenient and portable medium of circulation in India, the reasoning of the Chamberlain Commission was open to effective refutation.

CHAPTER III

STABILITY OF THE RUPEE IN TERMS OF PURCHASING POWER

1. In the last chapter, among the arguments for a gold currency, a charge of artificiality against the pre-War currency system was noticed, and reasons were indicated for sustaining that charge in spite of the defence of Mr. Keynes and the Chamberlain Commission. The present chapter will show the connexion between the failure of the currency machinery to provide for automatic expansion and contraction, and the phenomenon of high prices in India during the period 1893-1922.

As to the rise of prices there is not the least doubt whatever. The following table compiled by the Department of Statistics shows the course of prices in India expressed in index numbers (prices in 1873 being equal to 100) and is well worth a detailed study.

Year	Exported articles (28) un- weighted	Imported articles (11) un- weighted	General index number for all 39 articles unweighted	Weighted index number (100 articles) equated to 100 for 1873
1861	88	85	90	93
1873	100	100	100	100
1874	102	99	101	108
1875	95	90	94	96
1876	90	91	90	100
1877	110	88	104	129
1878	114	84	106	138
1879	112	83	104	126
1880	110	88	104	109
1881	99	86	96	99
1882	95	85	92	98

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Year	Exported articles (28) un- weighted	Imported articles (11) un- weighted	General index number for all 39 articles unweighted	Weighted index number (100 articles) equated to 100 for 1873
1883	93	79	89	99
1884	96	78	91	107
1885	91	75	87	106
1886	93	80	89	103
1887	94	83	91	104
1888	98	92	96	111
1889	104	91	101	117
1890	104	91	100	117
1891	103	84	98	120
1892	109	84	102	132
1893	112	89	105	129
1894	110	84	102	122
1895	111	87	104	120
1896	117	94	110	131
1897	124	86	113	153
1898	102	80	96	125
1899	100	87	96	121
1900	124	96	116	143
1901	116	96	110	139
1902	113	86	106	128
1903	103	88	99	122
1904	104	93	101	121
1905	116	96	110	135
1906	139	105	129	158
1907	145	116	137	167
1908	161	106	138	179
1909	133	99	124	160
1910	127	109	122	150
1911	136	113	129	155
1912	145	117	137	174
1913	154	117	143	182
1914	160	114	147	187
1915	155	146	152	182
1916	163	236	184	185
1917	170	262	196	186
1918	199	289	225	215
1919	277	274	276	301
1920	281	280	281	302
1921	239	228	236	273
1922	245	201	235	266

= 141

= 164

= 184

= 285

The salient facts to note in this table are :—

(1) The steadiness of the price-level during the period 1873–87.

(2) An upward tendency of prices during the five years prior to the closing of the mints, particularly in the year 1892.

(3) The comparative steadiness of the quinquennial average, in spite of annual fluctuations of prices during the decade 1893–1902.

(4) A continuous and rapid rise in the price-level during the succeeding four quinquenniums (1903–1922).

2. The period 1873–93 may be dismissed briefly. It was a period of falling exchange¹ but of steady price-levels. A detailed examination of the facts of the period does not support the common official view that if the mints had been kept open to the free coinage of silver, exchange would have fallen continuously and produced an unprecedented rise of prices in India. Exchange fell from 1s. 10·35*d.* in 1873 to 1s. 7·536*d.* in 1883, but the price-level during these years did not rise at all, rather it fell from 100 in 1873 to 99 in 1883. There was a drop of another threepence in exchange between 1883 and 1887 ; the index number of prices rose, but only to an inappreciable extent. During the five years prior to the closing of the mints, a much smaller fall in exchange was accompanied by a much greater rise in prices than during the period 1883–7. Again, during the two years after the closing of the mints exchange weakened, but the prices showed a fall and not a rise. It is plain that the critics of the silver standard have overshot the

¹ See my *Indian Currency, Banking and Exchange*, pp. 44-5.

mark and at best over-emphasized only one among the many elements in the problem.

It is interesting to note in this connexion that during the period 1883-8, it was not so much the *rise* as the *fall* of prices that was feared most by people. When asked if, in his opinion, the prices of Indian products must fall under a gold standard, Mr. J. E. O'Connor replied to the Fowler Committee as follows : 'It is partly a question of argument and partly a question of fact. All I wish to say about it is this : the prices of Indian produce may fall under a gold standard, but they have fallen under the *silver standard*. On the assumption which underlies the opposition to the closure of the mints, the fall in prices would probably be extremely accentuated if the silver standard were maintained, because it is argued that a silver standard tends to stimulate production. If it does so, there must be a fall in prices ; so that whichever way you take it, whether we have the gold standard or the silver standard, there is practically no difference between the two in regard to the course of gold prices for the products which we export to gold countries.' Considerations like these clearly show that the silver standard was not so inconsistent with steady, or even falling prices, as the apologists of the present system have attempted to make out.

3. The course of prices during the years 1894-1912 was the subject of investigation by Mr. Datta of the Indian Finance Department and it will be convenient to make his report the basis of discussion as to the causes of the rise of prices during that period.

The report pointed out that 'prices have risen in almost all the chief countries of the world as well as in India, but the *rise in India*, in recent years, has been

greater than in any other country', and divided the causes of this rise into two classes, namely (1) causes peculiar to India and (2) causes that had influenced the price-level throughout the world.

It seemed to attach greater importance to the second than to the first group of causes, though this was inconsistent with its conclusion that the rise of prices in India had been greater than in any other country.

Of the causes peculiar to India, the first place was assigned to the shortage of food production as compared with a very greatly increased demand for it. Several reasons were given in support of this view. Population had increased by a larger percentage in the period under inquiry than either the total area under cultivation, the area under food-grains, or the total production of food-grains ; the growing demand for jute, cotton and other commercial crops had led to the substitution of non-food crops for food crops, and 'unseasonable and deficient rainfall during the period under inquiry' had also contributed 'in no small measure to a shortage of production'.

Next in importance among the causes in this group was supposed to be an increased demand for commodities, due to an increase in the standard of living of a large section of the people, especially those who were engaged in the cultivation of jute, cotton, oil-seeds, and wheat.

The third cause was alleged to be 'the development of communications, and the lowering of the direct and indirect costs of transport in India itself and between Indian ports and foreign countries', which had linked prices in Indian ports to those of the world markets, with the result that 'prices in inland districts had been

levelled up to those at the ports in a greater degree than was previously the case'.

The Inquiry Committee rejected the suggestion that the volume of currency (rupees and notes of lower denominations than a thousand) had exercised an important influence on the level of prices in India, on the ground that the figures collected by them showed that the circulating medium apart from credit had increased only sixty per cent in volume as compared with a hundred and twenty per cent increase in the growth of business. They, however, admitted that the remarkable growth in monetary and banking facilities and in the development of credit had exercised considerable influence on prices.

Among the world causes which had indirectly affected the Indian price-level, the report mentioned only two, namely (1) the development of credit due to the increase in gold supply and (2) the destructive wars and the increase in armaments which had diverted capital and labour to unproductive purposes.

4. The Resolution of the Government of India on this report rightly questioned the correctness of the data on which Mr. Datta's first conclusion was based. It pointed out that the figures relied on by the Inquiry Committee were 'largely conjectural and uncertain', and that the returns for the tracts for which relatively accurate information was available showed clearly that the area under cultivation had expanded more rapidly than the population. It further drew attention to the fact that 'the cultivated area at the close of the period under review included irrigated land to a considerably greater extent than at the outset', and urged that 'the consequent improvement of outturn and increased certainty of securing it must have more

than counterbalanced any slight defect in area as compared with population, if indeed any such defect had existed'.

As to the substitution of non-food crops for food crops, the Inquiry Committee had themselves admitted in paragraph 175 of their report that the total area which commercial crops had occupied at the expense of food-grains was very small compared with the total area under cultivation of food crops, and that consequently the effect of that substitution 'could not have *been very great*'.

But the fundamental error in Mr. Datta's reasoning on this point proceeds from a confusion of ideas in his theory of prices. In paragraphs 221 to 227 of the report, he accepts the quantity theory of money¹ and sums it up correctly as follows: 'When all these factors have been allowed for, prices are determined by the relation *between the volume of the purchasing medium in terms of money and the quantity of goods*. The volume of the purchasing medium is, however, by no means the same as the volume of specie, or what is generally called money. This purchasing power includes not only specie, but bank (or currency) notes and credit as well.' But when he comes to apply this theory, he forgets this explicit statement, and reasons as if the price-level depends on the relation between the *quantity of goods and population*. If population had grown at a more rapid pace than production, there would have been a fall of *real* wages in India—a fact which is inconsistent with the view expressed in the report that 'there has been a large increase in the demand for *all* kinds of commodities on the part of

¹ See my *Indian Currency, Banking and Exchange*, ch. ii.

consumers in India'. He admits that food *supply had increased* and that business of all kinds had *expanded*; in other words there was an increase in T in the equation $P = \frac{T}{M V + M^1 V^1}$. Other things being equal, this would have tended to increase P , the purchasing power of the rupee, and so produce a *fall of prices*, and not a *rise*. Whether food supply had increased in the same proportion as population or not, is a question absolutely irrelevant to the discussion of a *general rise* of prices in India. Even if commercial crops had taken the place of food crops, that could only have caused an increase in the price of food-grains *relatively* to the prices of other crops; it could not have caused a *general rise of prices in India*.

5. Mr. Datta's second conclusion is open to a similar objection. It is difficult to reconcile the proposition that the production of food supply had not kept pace with the growth of population, with the statement that 'a noticeable change had taken place in the style of living of *all* classes of society, upper, middle and lower, and the demand for all kinds of the necessities of civilized existence in regard to *food*, clothing, housing, education and society had increased'. But apart from this inconsistency, there is a more serious error in his argument. Increased consumption is impossible without increased production; and to make the purchase and sale of larger quantities of goods possible there must take place either an increase in the medium of exchange or a *fall of prices*. For if, in the equation $P = \frac{T}{M V + M^1 V^1}$ T increases, P must increase or (what comes to the same thing) prices *must fall* in the absence

of any change in the denominator. It is true that an increase in the demand for any *particular* commodity will cause *a rise in its price*; but in this case we are comparing only *one* commodity with all other goods, including the medium of exchange. A *general* increase in the demand for all commodities is, however, impossible without an increase in supply; and this *by itself* unaccompanied by an increase in the medium of exchange must produce a *fall* and not a rise of prices.

6. As to the third cause, there is no doubt that it sent up the prices of export commodities in inland districts; but at the same time it must have increased T and so tended to produce *a fall of prices*. The only force capable of neutralizing this tendency was an increase in V and V^1 ; but the authors of the report explicitly state in paragraph 234 that they 'have had no evidence of any change in the rapidity of the circulation of currency and credit during the preceding two decades'. At its best then, this cause was a very inadequate explanation of *a general rise of prices all over the country*.

7. There remains the last point to be considered. It may at once be conceded that there was an appreciable growth of credit in India during the period under inquiry; but the basis of that credit could only have been rupees or notes, and the amount of credit must have borne some definite ratio to cash. And the volume of cash was determined, not by the operations of natural and automatic forces under a system of open mints, but was regulated by Government. In these circumstances it is not possible to separate the effects of credit on prices from those of currency.

At any rate, the extension of credit could not

have been a factor of first-rate importance in the rise of Indian prices, for the bulk of the transactions during this period were in cash and not on credit. Banking in India was still undeveloped ; the use of cheques outside the Presidency towns was rare ; and even in the Presidency towns the proportion of *commercial*, as distinguished from *banking*, transactions in which cheques were used to the total volume of business, was extremely small. The real explanation of the phenomenal rise of prices in India must therefore be sought elsewhere.

The Inquiry Committee rejected the suggestion that the volume of currency had anything to do with the rise of prices, on the ground that the volume of business had increased far more than the volume of money. But the figures which form the basis of this conclusion are not at all reliable. In the first place, Mr. Datta's estimate of the monetary circulation includes neither (1) the circulation of sovereigns, nor (2) the circulation of small silver coins. Secondly, Mr. Datta's index number of the growth of business is estimated on an entirely wrong basis. In measuring the volume of exchange-work which the monetary tools of a country have to do, it is the *physical volume* of business and not its monetary *value* that really matters. The statistics used for this purpose should be statistics of *physical quantities* and not of *prices*, since the movements of the price-level are among the results of inflation. But in some of the items that enter into Mr. Datta's estimate, it is the *values* and not the physical quantities that are taken into account.

In the last chapter it was seen that the expansion and contraction of Indian currency was not as natural and automatic under the pre-War gold-

exchange standard as it was under the silver standard or as it would have been under a full fledged gold standard, and the view expressed that an over-issue of rupees and notes was just as likely as an over-issue of inconvertible paper in other countries. This view is borne out by a parallelism between the increase in the currency and the movements of prices during the period under discussion. The following figures speak for themselves.

Year	Coin	Total coin- age of rupees	Active note circula- tion on 31 March	Clearings	Index number of prices
1893	Victoria 1893	7,87,30,310 ¹	19 crores	146 crores	129
1894	...	...	18 crores nearly	158 "	122
1895	...	...	20 "	176 "	120
1896	...	...	20 "	181 "	131
1897	Victoria 1897	15,24,777 ²	20 "	191 "	153
1898	" 1898	75,19,413 ³	19 "	176 "	125
1899	...	...	20 "	203 "	121
1900	Victoria 1900	11,81,39,499 ³	22 "	212 "	131
1901	" 1901	10,91,35,961 ⁴	22 "	233 "	139
1902	" 1901 but coined in 1902	9,31,39,384 ⁵	22 "	232 "	128
	Edward VII 1903 coined in 1902	25,000	...	...	...

¹ Includes 5,90,000 coined for the Bikaner State.

² On account of Kashmir and Bhopal coinage.

³ Includes 2,09,02,414 coined for Indian States.

⁴ Includes 1,90,43,904 coined for Indian States.

⁵ Includes 2,98,86,014 coined for Indian States.

Year	Coin	Total coin- age of rupees	Active note circula- tion on 31 March	Clearings	Index number of prices
1903	Edward VII 1903	10,23,47,506 ¹	25 crores nearly	247 "	122
1904	" 1904	16,02,78,908 ²	28 "	255 "	121
1905	" 1905	12,74,60,106 ³	28 "	304 "	135
1906	" 1906	26,37,50,433 ⁴	33 "	335 "	158
1907	" 1907	25,22,49,816 ⁵	36 "	428 "	167
1908	" 1908	3,09,32,498	32 "	410 "	179
1909	" 1909	2,22,97,326 ⁶	33 "	412 "	160
1910	" 1910	1,76,88,673	40 "	465 "	150
1911	" 1910 coined in 1911	5,82,386	...	...	...
	George V 1911	94,43,049	40 "	516 "	155
1912	" 1912	12,41,89,206 ⁷	44 "	589 "	174
1913	" 1913	16,32,65,951 ⁸	47 "	650 "	182
1914	" "	4,83,70,151	50 "	538 "	187

Public attention was drawn to the significance of this parallelism as early as 1907 in an unsigned article entitled 'India's Present Monetary Condition' which appeared in the *Economic Journal* for March 1907; and the late Mr. Gokhale pressed it upon the attention

¹ Includes 11,66,451 coined for Indian States.

² Includes 5,94,221 coined for Indian States.

³ Includes 3,28,000 coined for Indian States.

⁴ Includes 3,90,310 coined for Indian States and 167 lakhs coined from Gold Standard Reserve silver.

⁵ Includes 94,766 coined for Indian States and 433 lakhs coined from Gold Standard Reserve silver.

⁶ Includes 1,01,459 coined for Indian States.

⁷ Includes 16,56,250 coined for Indian States.

⁸ Includes 12,78,441 coined for Indian States.

tion of Government in the budget debate of March 1908, as the following extract from his speech on that occasion will show :—

‘It seems to me, my Lord, that the phenomenally heavy coinage of new rupees during the last few years by the Government has something to do with this general rise in prices. . . . The stock of rupees in India before 1898 was estimated by Mr. Harrison, the expert, at 130 crores. During the last ten years, the Government have made a net addition to this stock of over 100 crores. It seems to me that such a sudden inflation of the country’s currency is bound to result in a general rise of prices. It may be said that, in view of the general expansion of trade during the last few years and of the increased industrial activity of the country, such augmentation was necessary. A reference to trade returns, however, does not support this view. During the twenty years preceding the closing of the mints, our exports of merchandise advanced from 54 to 106 crores, that is doubled themselves, and yet the average annual coinage only advanced from 6 to 8·3 crores during that time. Again, from 1894 to 1905, the exports rose from 106 to 157 crores, but the annual average coinage for the five years ending 1904 was just the same as that for the eight years ending 1893, namely 8·3 crores. It is therefore difficult to see why the average should have suddenly gone up from 8·3 crores to 20·7 crores during the last three years. What is probably happening is this : the rupees issued by the Government in response to the demands of trade go into the interior and spread themselves among those from whom purchases are made. But owing to various circumstances, they do not flow back quickly to centres of

trade or to banks, and thus new rupees have to be obtained for transactions for which old rupees might have sufficed. Meanwhile, the melting back of rupees into silver having ceased, every issue becomes a net addition to the volume of the currency. If this analysis of the situation is correct, it suggests a grave problem, for it means that prices will tend to rise still further.' Even Mr. Keynes, one of the ablest exponents of the gold-exchange standard, recognized the significance of this parallelism between the rise of prices and the increase in the currency. In an article in the *Economic Journal* (March 1909) he showed by means of the following table that the percentage of increase in currency was very nearly the same as that of the rise in prices during the years 1903-7.

Year	General index number of prices	Estimated total of the currency on 1 April of each year
1903	100	100
1904	102	110
1905	112	115
1906	131	127
1907	140	136 (1 April) 143 (31 December)

The Inquiry Committee demurred to the obvious conclusion to be drawn from this parallelism. They proved by means of a table showing the yearly and average net coinage of silver before and after the closing of the mints, 'that in spite of the heavy coinage of recent years, the average net coinage during the eighteen years subsequent to the closing of the mints was Rs. 5,66,00,000 and in the previous eighteen years Rs. 7,51,00,000', and contended that since the

average annual coinage during the period 1892-3 to 1911-2 was much less than in the years 1874-5 to 1892-3, it could not have been the cause of the rise in prices during the period under inquiry.

But these figures were not really relevant to the issue. What mattered in this question was not the quantity of rupees minted but the amount of rupees put into *active circulation*. Prior to 1893, the value of the rupee was the same as the value of its silver content, and so a substantial part of the rupee coinage was used as bullion. A simple calculation would show the effect of correction on this account. Mr. F. C. Harrison estimated the volume of rupee circulation at 120 crores in 1892 ; and Sir Edward Baker put the loss by wastage at 2 per cent per annum. The average annual coinage previous to 1893 was about 7 crores, of which half used to be melted by the public, according to official estimates at one time. But later on, this proportion was admitted to have been an underestimate, even by official experts like Mr. O'Connor, the Director-General of Statistics in 1898. When asked by the Fowler Committee to explain the continuous demand for silver even after the closing of the mints, he said, ' It has been a subject of astonishment to us ever since the closing of the mints, that there has been such a demand. Before the closing of the mints, practically all the silver imported, with the exception of about 4 per cent, passed into the mints and was coined. Then the assumption used to be that at least half of that remained in the currency as coined silver, and the other half was melted down. But it looks now, judging from those figures as if that inference was not quite correct, and *that a very much larger proportion of the rupees that were coined must have been*

melted down into ornaments.' When pressed to suggest if much of this amount was hoarded, he emphatically replied, 'No, not hoarded, judging from the imports of silver. I do not believe that any of these imports have got into hoard, I think they have been converted into ornaments, except so far as they went into the native mints.' It would not therefore be far wrong to put the amount which thus disappeared from circulation at 5 crores per annum. The annual addition to currency before the closing of the mints was thus only 2 crores on an average, an amount *just enough to make up the loss by wastage*. In other words, the rupee circulation was pretty steady prior to 1893. It is this fact more than any other that accounts for the comparative steadiness of prices before the closing of the mints.

Conditions, however, were different after 1893. Rupees once coined remained always coins, for it was unprofitable to melt them. They could be used only as currency, and so the entire amount of coinage influenced prices. There was another circumstance operating in the same direction. Prior to 1893, the value of the rupee was the same as the value of its silver content. The annual imports of silver (both bullion and coin) were small in comparison with the *total* stock of silver in the country, and so they could produce only an inappreciable fall in the value of silver. But after 1893 the purchasing power of the rupee depended mostly on the *quantity of currency*, and the annual additions to the circulating medium were not quite so small in comparison with the total amount of currency. They therefore produced a greater effect on rupee prices.

It is interesting to note in this connexion the

opinion of Mr. Lindsay, the real originator of the present system, on the nature of the rupee standard in India. He plainly told the Fowler Committee, 'I look upon rupees under the present system as simply *inconvertible metallic notes* and they operate entirely according to the laws that govern an *inconvertible paper currency*. I think the laws that govern an *inconvertible paper currency* and the laws that govern an *inconvertible coin currency* are precisely the same.' The natural corollary follows, that the main cause of a rise of prices under an *inconvertible coin currency* is usually its excessive issue, or to use a technical phrase, *over-issue*.

Much the same thing may be said about the note circulation. Indian currency notes were convertible into rupees both before and after 1893; but the monetary changes of 1893 effected a revolution in the character of the rupee. Prior to 1893, it was a freely minted coin convertible into *bullion*; after 1893, it was a token coin not convertible freely into gold except on those rare occasions when Government sold Reverse Councils. The notes, being thus convertible only in an *inconvertible coin currency*, influenced prices much in the same way as *inconvertible paper money* does. We may here invite attention to the following remarks of Professor Cannan in his book *Money* :—

'It has not till lately been well understood, even by experts, that when coin is not convertible into *free bullion*, convertible notes may be issued in quantities just as great as *inconvertible notes* and with exactly the same result. . . . A well-enforced denial of freedom to deal with coin would be sufficient by itself to allow *over-issue* to take place without the abolition of the convertibility of notes into coin. Recent

experience has shown this to be perfectly possible. The British Treasury's one pound and ten shilling currency notes have been convertible at the Bank of England into full-weight coin but are no longer convertible into free gold. Thus convertibility of note into coin is deprived of all its virtue when laws against melting and exportation of coin are present and effective. Convertible notes can then be issued without check just like inconvertible notes, and consequently can drag down the value of money below that of the bullion contents of the coin, and give rise to the same phenomenon, a rise of general price including the price of the bullion.'

The chairman of the last Royal Commission on Indian currency and exchange suggested in the course of his cross-examination of several Indian witnesses¹ that the pre-War exchange standard was in no way inferior to the gold standard in Great Britain or the United States of America in point of price stability, and presented the case in defence of it as follows: 'In 1895 the (*Statist*) figure was 62. The figure for India (general prices) was 104, and the figure for the United States of America for the same year was 94. These are the three figures. Now if we take the index figures in 1913, they were India 143, United Kingdom 85, and the United States of America 132, and if we equate the 1895 figures to a hundred, we find that in 1913 the actual figures worked out to a rise from 100 in the case of India to 137, in the case of the United Kingdom to 137, and in the case of the United States of America to 140, that is a general rise of prices.' A close examination of this argument will, however,

¹ See *Hilton Young Commission Report*, Minutes of Evidence, Qq. 3900, 4224, 5472.

reveal serious errors therein. A glance at the figures in the table on page 54 will show that the Indian index number used by the chairman of the Commission for the purpose of comparison is not the general weighted index number for 100 articles but the unweighted index number for 39 articles consisting of 28 articles of export and 11 articles of import. But the charge against the pre-War Indian exchange system is not that under its fixed rate of exchange the prices of exported and imported articles did not move to the same extent as world prices, but that the purchasing power of the rupee over *commodities in general* was not as stable as that of the English pound or the American dollar. The proper index number to use for the purposes of comparison is either the weighted index number for 100 articles or the index number of food-grains which form the bulk of India's production. The second error in this reasoning arises from taking 1895 as the base year for the purpose of tracing the effect on prices of a currency system based on the principle of exchange stability. In 1895 the external value of the rupee was only 13*d.*; it was not till 1899 that it rose to 16*d.*; and the rupee coinage was resumed as a result of stabilizing the rupee at 1*s.* 4*d.* during 1900-4. It is misleading, therefore, to start with the year 1895, when the pre-War exchange system had not even begun to function; the earliest year which can be used as the base is 1899. If we avoid these two errors we find that during the period 1899-1913, the United States index number rose from 75 to 100, and the English index number from 80 to 100, while the Indian index number for 100 articles showed a rise from 66 to 100.¹

¹ See J. P. Young, *European Currency and Finance*, Table 2, in which all the index numbers have been reduced to 1913=100.

In other words, the Indian prices rose by over 50 per cent as against a rise of only 33 per cent in the American and 25 per cent in the English price-level. It may be contended that 1899 was too favourable a year to take as the base, since Indian prices during that year were lower than in the three preceding years as well as in the three succeeding years, and that, if the year 1900 or 1901 were chosen instead, the result would be materially different. But the fact is that the three years before as well as after 1899 were abnormal in so far as there was a terrible famine in 1896-7 and severe scarcity in 1900-2, and the effects of these on prices continued for some time after.¹ If we take 1903 or 1904 as the base, the contrast between the changes in the Indian price-level and those in the world prices is even greater. Between 1903 and 1913, the American price-level rose by 16 per cent² and the English by about 23 per cent, as against a rise of 49 per cent in the Indian price-level measured by the weighted index number for 100 articles. During 1904-13 the rise in the American, English and Indian prices was 16, 22 and 50 per cent respectively, while the retail prices of food-grains went up by 70 per cent.

8. We now come to the War period 1914-8. The rise of prices during these years was even more marked than in the preceding twenty years, as the following

¹ In 1896-7 famine spread all over India except lower Barma; in 1900 it affected Madras, Bombay, Central Provinces and Berar, Central India and the Nizam's dominions; and in 1901-2 the harvests were much below the normal in Bengal, Bihar, Madras and Central Provinces. The index number of prices of food-grains was 124 in 1895, 200 in 1897, 159 in 1900 and 144 in 1902.

² From 86 to 100.

table compiled by the Department of Statistics shows.

General Prices

Yearly average	Unweighted index number	Weighted index number
1900-4	100	100
1905-9	120	122
1909-14	127	130
1914	138	143
1915	143	139
1916	173	142
1917	184	142
1918	211	165

During the same period, the currency in circulation was increasing by leaps and bounds. The total rupee, note and cheque currency¹ according to official estimates, rose from an average of 782 crores in the pre-War five years 1910-4 to an average of 1,388 crores during the five years 1915-9. Expressing these by index numbers with 1900-4 as the basic period, we get 198 and 352 as the index numbers for the periods 1910-4, and 1915-9 respectively.² The expansion of the circulating medium was really larger than this, for these figures do not include hundis or bills of exchange, which are in fact 'substitutes for money' and are capable of producing the same effect on prices as money. But not only the volume of currency increased during this period but also its *velocity*; for, as Mr. Gubbay said in his statement before the Babington Smith Committee, 'nothing is more remarkable during

¹ Bank clearings.

² See Shirras, *Indian Finance and Banking*, pp. 24, 230 and *Statistical Tables Relating to Banks in India*, Table 16.

the past few years than the way in which the unprecedentedly large Government disbursements have returned to the banks in the principal money-markets, there to be caught up again in the wheel of credit.' These facts point unmistakably to a considerable degree of inflation in the country, for production in India increased only thirty per cent during the period 1913-9. Even the official estimates agree that the growth in circulation had 'outstripped the growth in business to a marked extent'.¹

How close the correspondence between the rise of prices and increase of circulation has been, is shown by the following table based upon the rough estimates of Professor Jevons.²

Year	Total circulation—rupees, notes ³ and bank deposits (in crores of rupees)	Official index number of prices (unweighted)	Index of circulation with 1912 as the basic year	Index number of prices with 1912 as the basic year
1912	345	137	100	100
1913	353	143	102	104
1914	342	147	99	107
1915	362	152	105	111
1916	411	184	119	134
1917	499	196	145	143
1918	570	225	165	164
1919	675	276	195	201
1920	647	281	187	205

9. As usual the official apologists attempted to absolve Government from all blame in the matter by

¹ Shirras, op. cit., p. 231.

² See Jevons, *Future of Exchange*, pp. 36-44 and *Report of the Controller of Currency* (1921-2), p. 37.

³ Gross circulation at 31 March.

attributing the rise of prices to causes beyond Government control. This undeniable expansion of currency was said to have been 'the result of increased demand on the part of trade and the public for currency owing to high prices of Indian produce resulting from increased demand for it from abroad'; and the rise of prices was represented to have been the *inevitable consequence* of the general rise of prices *abroad*. There is no doubt an element of truth in this view. Many of the exports such as wheat, cotton, jute, hides, tea, etc. have a world-wide market; so also some of the imports, for example cotton goods. The prices of these are determined by the supply and demand for them in all the countries of the world combined; and if their world prices rise, their prices in India must also move in an upward direction. But this fact alone cannot explain a *general* rise of prices of almost *all* articles *at the same time*; that can only happen when the currency of the country has expanded faster than its total business. This line of argument, moreover, seems to confound cause with effect. Is inflation the cause of high prices or high prices the cause of inflation? If the quantity theory of money is correct—and no official apologist has ever expressly repudiated it—there is no doubt that prices cannot rise without a *previous* creation of artificial purchasing power.

It is interesting to note that such popular misconceptions were by no means peculiar to India, for in various other countries also, the bungling officials found that 'the simplest way was to blame the rise in prices in foreign countries for the rise in prices at home'. Such an explanation was, however, untenable in the case of countries with either free paper currencies or currencies convertible only into inconvertible token

coins, for, as has been pointed out by Professor Cassel, 'then, a rise in prices in a foreign country should have no other effect than that of the country's currency being quoted so much lower, that the prices on goods imported therefrom remain unaltered. If the influence of the rise in foreign prices is carried further, it is a sign that it has found support in an independent domestic inflation.'¹

In justice, however, to the official views in India on this subject, it must be admitted that Government had no option but to flood the country with currency if they were to adhere to the basic principles of the pre-War currency system and continue their restrictions on the imports of specie into India. Exchange between two countries depends essentially upon the relative purchasing power of their currencies. Had Government abstained from issuing more currency in the War period, the value of the *sterling* in terms of rupees would have *fallen* as soon as sterling prices at the English ports rose. Had this been permitted, the purchasing power of the rupee would have been altogether independent of any inflation or rise of prices in England or elsewhere. But Government were wedded to the principle of *stabilizing* the rupee-sterling exchange; and so Council Bills were sold freely at fixed rates and the country was surfeited with currency. Prices rose and the demand for currency continued unabated owing to the constant inflation abroad. The currency system of India thus involved Government in a vicious circle. It was in fact the most important cause of the rise of prices during the War period; and experts like Sir David Barbour practically admitted the

¹ *Money and Foreign Exchange after 1914*, p. 167.

justice of this charge, as the following extract from his evidence before the Babington Smith Committee will show :—

‘The fundamental principle on which the gold standard in India was based was that silver rupees would only be issued in India at the rate of fifteen rupees for the quantity of gold contained in a sovereign.

‘As a matter of convenience, however, it was arranged that, instead of presenting gold at the Indian mints, persons wishing to obtain rupees might purchase drafts on India from the India Office at an appropriate rate of exchange.

‘The procedure was quite sound so long as “the pound sterling” was freely exchangeable for gold and there was a free market in gold. These conditions were not fulfilled in recent years and we have *been trying to maintain the old rate of exchange*, not between the rupee and gold, but *between the rupee and the “pound sterling”*, when the “pound sterling” *has been practically divorced from gold*.

‘The danger of the procedure would be understood more clearly if we consider what would have happened if the rupee had been linked to gold through the medium of the German mark at the rate of twenty marks to fifteen rupees and if an attempt had been made to maintain this rate during the last five years.

‘The rupee would simply have been *enormously depreciated in purchasing power*, there would have been a considerable rise of prices in India and it would have been impossible to find currency for India except by excessive issues of inconvertible notes. *Similar results, fortunately in a much less degree, have followed the attempt to maintain the old rate of exchange between*

the rupee and the "pound sterling" instead of between the rupee and gold.'

It may be added here that while Sir David Barbour was right in his diagnosis of the disease, the remedy he suggested was not a permanent solution of the problem of inflation.

10. This inflation continued even after the Armistice and we may therefore mention here some of the various ways in which it was actually brought about. In the first place, Government financed their own expenditure and also that on behalf of the Home Government, by issuing notes without any metallic backing at all. The legal limit of the invested portion of the Paper Currency Reserve was raised several times, till at the end of 1919 it stood at 120 crores, of which only 20 crores could be invested in the securities of the Government of India. The issue of notes of such low denominations as one, and two and a half rupees further expanded the note-issue ; and the evil was aggravated by the withdrawal of facilities for encashing notes. Secondly, Government issued large quantities of rupees, largely to meet the heavy sale of Council Bills due to unprecedentedly favourable trade balances during the period, without keeping the profits from this coinage in the form of gold. On 30 November 1919, the Gold Standard Reserve was held almost entirely in securities. This had an effect similar to that of the issue of notes without metallic backing ; the difference between the two was in fact one of degree and not of kind. Thirdly, the issue of loans by Government on an unprecedented scale led to inflation. The large amount of Government securities enlarged the basis of bank credits and many who subscribed to the War Loan stock took it to their banks, borrowed nine-tenths of its value on the strength

of it and often with these borrowed funds purchased more stock and re-borrowed from the banks on its security. The increase of these loans thus led to increase of deposits and creation of more bank money. Government also issued short term bills (mostly for three, six, or nine months) called Treasury Bills, in order to finance their deficits. Quite a large proportion of these were purchased by banks, and being repayable at an early date, they were regarded by them as a potential source of cash, justifying them in keeping a smaller proportion of 'cash reserves' to deposits than they had deemed advisable before the War. So long as these Treasury Bills were not repaid, the volume of bank money thus tended to be abnormally large as compared with the amount of real cash and to maintain a higher level of prices. We may then conclude that during the period following the War, the volume of money in the principal money-markets of India had increased enormously owing to the enormous disbursements by Government, the expansion of currency note circulation and the creation of credit.

11. During the years 1919 to 1921 there was at first a boom and then an extensive fall of prices in the United Kingdom, United States and many other countries, but not in India. As the reader will see for himself, there is a striking contrast between the column relating to India and those dealing with the other countries in the following table.

During the boom of 1919-20 when world prices were soaring, Government allowed exchange to absorb the shock, with the result that the Bombay index number rose only 8 points, whereas in England there was a rise of 71 points in the price-level, in the United States 41 points, in Norway 103 points and in France 232 points.

	India (Bombay)	United Kingdom (<i>Statist</i>)	United States Bureau of Labour (440 articles)	Norway	Sweden	Nether- lands	France
Year	July 1914= 100	1913= 100	1913= 100	Average for half year ended June 1914= 100	Average for half year ended June 1914= 100	1913= 100	1913= 100
Average 1919	223	242	206	322	331		356
Maximum monthly price-level in 1920	231	313 (April)	247 (May)	425 (Sept.)	366 (June)	296 (July)	588 (April)
Dec. 1920	192	243	179	377	299	233	435
Jan. 1921	191	232	170	344	267	213	407
Dec. 1921	190	157	140	269	175	165	326

After the report of the Babington Smith Committee, Government reverted to their old policy of exchange stability, but soon found it beyond their power to deflate currency to the extent required to maintain the rupee at 2s. gold or even 2s. sterling. They did sell Reverse Councils to the extent of £55,532,000 in 1919-20 and 1920-1, meeting them at first from the Secretary of State's treasury balances in sterling and crediting their sale proceeds to the treasury balances in India. Between March and October 1920, however, the Secretary of State drew £46,650,000 from the Paper Currency Reserve in England and this should have involved a contraction of the currency in India to the extent of Rs. 68,73 lakhs. But, afraid of creating monetary stringency by contracting currency to this extent, Government issued *ad hoc* Treasury Bills to the extent of

Rs. 34,05 lakhs. The net result of these transactions was, therefore, that the currency was contracted by Rs. 34,68 lakhs as against the sale of Reverse Councils amounting to £ 55,532,000, from which Government realized Rs. 47,14 lakhs in India.¹ The effect of this deflation was, however, neutralized to a substantial extent by an increase of $23\frac{1}{2}$ crores in the aggregate deposits of the Imperial Bank and the Indian joint stock banks.² Even this effort had to be discontinued after the failure of the attempt to stabilize the rupee at 2s.³ The financial deficits of 1919-20, 1920-1 and 1921-2 seriously crippled the power of Government to do anything substantial in the matter of deflation, for Government financed these deficits by the issue of fiduciary currency notes, by incurring a large floating debt in the shape of Treasury Bills and by appropriating large sums from the proceeds of their regular annual borrowings. The general depression in trade during 1920-1 and 1921-2 tended to contract circulation by decreasing the bank deposits and rupees in active circulation to some extent, but any courageous policy of deflation was out of the question so long as Government budgetted for deficits to live on credit, had a host of Treasury Bills maturing constantly and were anxious to avoid unpopularity⁴ with the commercial classes

¹ See *Hilton Young Commission Report*, Appendix 10.

² *Ibid.*, Appendix 74.

³ See my *Indian Currency, Banking and Exchange*, ch. viii.

⁴ Compare the evidence of Mr. M. M. S. Gubbay, then Finance Secretary (*Hilton Young Commission Report*, Minutes of Evidence, Q. 12491): 'You cannot go through a period of purging without some amount of discomfort whether it is physical or in matters of currency. The unfortunate thing is that this discomfort in the past, when it did arise, used to be attributed particularly

who disliked nothing so much as a stringency in the money-market. Compelled by these circumstances, the Government of India gave up in despair the policy of exchange stability which had up to this time been the very basic principle of the Indian currency system. The shock of the rapidly falling world prices was, therefore, allowed to fall mainly on the Indian exchange, with the result that exchange declined from 2s. 8½*d.* sterling or 1s. 11 $\frac{7}{8}$ *d.* gold in February 1920 to 1s. 3 $\frac{13}{8}$ *d.* sterling or 11 $\frac{9}{8}$ *d.* gold in July 1921. The country was thus saved, more by chance than by design, from the violent disturbance that followed in the wake of the extraordinary rapid and extensive fall of prices in most other countries. Taking the period 1919-21 as a whole, India enjoyed the advantages of a *relatively stable* level of *internal prices* at the expense of a *fluctuating exchange*.¹

12. The course of relative prices in India and outside during the years 1922-4 has already been noticed in my other work.² From January 1922 to March 1923 prices *rose* continuously in the United States, the index number being 138 in the beginning and 159 at the end of this period, while the *Economist* index number in Great Britain rose only four points from 159 in January 1922 to 163 in March 1923. During the same period the Calcutta index number³ rose from 175 in January to 182 in May, fell to 172 in December 1922

to the operations of one or more individual officials.' See also his reply to Q. 12498.

¹ Cf. Keynes, *Tract on Monetary Reform*, pp. 156-7.

² Op. cit., chs. viii-ix.

³ The index number used here is the same as given in *Hilton Young Commission Report*, Appendix 7.

but rose again to 177¹ in March 1923. From December 1923 to September 1924, the gold prices in the United States fell only two points, while the Calcutta index number stood at 174 in December 1923 and at 175 in September 1924. On the whole, the Indian price-level was steady during the period intervening between January 1922 and September 1924, the Calcutta index number being 175 in January 1922, and 174 in September 1924. During the same period, the United States index number rose from 138 and 141 in January and February 1922 to 150 and 149 in August and September 1924, while the *Economist* index number for Great Britain registered a rise from 159 and 158 in January and February 1922 to 172 and 176 in August and September 1924. The monsoons during the interval were exceptionally good and the normal expansion of trade would have tended to produce a marked fall in the Indian price-level but for the fact that Government expanded the currency by 3 crores in 1922-3 and 22·5 crores in 1923-4. It seemed as if Government had after all learnt wisdom by experience and adopted stability of prices as the goal of their monetary policy, leaving exchange free to find its own level.

13. It is interesting to note at this stage a close parallel between the movements of Indian prices and the changes in the volume of circulation during the period 1920-4. The following tables give the relevant figures for the purpose of comparison.

14. Between September 1924 and June 1925, the Calcutta index number fell from 175² to 153³ in spite of an

¹ The revised Calcutta index number given in the *Indian Trade Journal*.

² Revised index number given in the *Indian Trade Journal*.

³ Ibid.

Year	In crores of rupees		Bank deposits ³	Total circulation	Index of total circulation 1914=100	Calcutta index number ⁴ (45 articles) 1914=100	Bombay index number (44 articles) 1914=100
	Rupees in active circulation ¹	Average active note circulation ²					
1914	187	45.43 ²	94	326.43	100	100	100
1920	260	138.88	235	633.88	194	204	216
1921	233 ¹	152.22	224.67	609.89	186.6	181	198
1922	247 ¹	153.27	206.18	606.18	185.6	180	187
1923	244 ¹	156.93	195.63	596.56	182.7	176	181
1924	234 ¹	160.91	207.36	602.27	184.4	177	182

addition of sixteen crores to the total volume of currency, owing to the abnormally large increase in the volume of Indian trade. During this period, the *Economist* index number fell from 176 to 162, while the United States index number rose from 149 to 157. The fall in Indian prices in this period was thus very much greater than in England and was in no way justified by the movement in world prices, as reflected in the United States index number. It was not due to any deliberate contraction of currency, but to the larger increase in trade and insufficient expansion of currency. But it is plain that Government were now tempted to give up

¹ See *Hilton Young Commission Report*, Appendix 9 para. 2.

² See *Report of the Controller of Currency* (1924), para. 35.

³ See *Statistical Abstract for British India*, Table 132. In the absence of separate figures for bank deposits subject to cheque, the amount of total deposits has been taken, which too will give a fairly good result, since there is no special reason to suppose that the proportion of fixed deposits to the whole has changed materially during this period.

⁴ Taken from tables given in *Hilton Young Commission Report*, Appendices 7, 69.

the policy of price stability in favour of maintaining stability of exchange between England and India in the neighbourhood of 1s. 6d. sterling.

In April 1925, England returned to the gold standard and in June 1925 the external value of the rupee reached 1s. $5\frac{1}{16}$ d. gold. Since then, under a definite policy of exchange stability which prevents exchange from absorbing the shock of changes in world prices, Indian prices have generally followed the trend of gold prices in the United States or sterling prices in England, as the figures in following tables will show.

Table I

	Calcutta index number July 1914=100	United States Bureau of Labour statistics 1913 parity	Board of Trade Great Britain 1913 parity
1925			
July	157	160	157·5
August	154	160	157
September	155	160	156
October	158	158	154·8
November	161	158	153·7
December	159	156	153·2
1926			
January	159	156	151·3
February	154	155	148·8
March	151	152	144·4
April	149	151	143·7
May	146	152	144·9
June	147	152	146·4
July	145	151	148·7
August	147	149	149·1
September	146	151	150·9
October	144	150	152·1
November	146	148	152·4
December	146	147	146·1
1927			
January	146	147	143·6
February	148	146	142·6
March	146	145	140·6
April	145	144	139·8
May	146	144	141·1
June	149	144	141·8
July	150	145	141·1
August	151	147	140·9
September	149	149	142·1
October	147	150	141·4
November	148	150	141·1
December	148	149	140·4

Table II

Index number of wholesale prices in India, England and the United States of America 1928-9

	Calcutta July 1914=100	English Board of Trade 1913=100	United States Bureau of Labour Statistics	
			1926=100	Percentage of 1913 ¹
1928				
January	145	141.1	96.3	138
February	144	140.3	96.4	138.1
March	144	140.8	96	137.5
April	146	142.9	97.4	139.5
May	147	143.6	98.6	141.3
June	145	142.6	97.6	139.8
July	148	141.1	98.3	140.8
August	143	139.3	98.9	141.7
September	142	137.6	100.1	143.4
October	143	137.9	97.8	140.1
November	146	137.9	96.7	138.5
December	145	138.3	96.7	138.5
1929				
January	145	138.3	97.2	139.3
February	144	138.4	96.7	138.5
March	143	140.1	97.5	139.7
April	140	138.8	96.8	138.7
May	139	135.8	95.8	137.2
June	138	135.6	96.4	138.1
July	142	137.4	98	140.4
August	143	135.8	97.7	140
September	143	135.8	97.5	139.7
October	140	136.1	96.3	138
November	137	134	94.4	135.2

¹ Taken from the monthly bulletin of the League of Nations, Geneva.

CHAPTER IV

DEFECTS IN THE INDIAN CURRENCY SYSTEM AND THEIR CHIEF REMEDIES

1. The history of the Indian currency system as outlined in the preceding chapters shows unmistakably the influence of one governing idea in all the various stages of its growth. Stability of the rupee-sterling exchange was the supreme consideration with Government ; and everything else was subordinated to that one end. The Chamberlain Commission considered that the 'cardinal feature' of the Indian system was 'the absolute security for the convertibility into sterling of so much of the internal currency as may, at any moment, be required for the settlement of India's external obligations'.¹ Almost all the official witnesses before the Babington Smith Committee held the same view ; Sir Lionel Abraham was interested only in the 'practical solution of three main problems', of which the very first was 'one relating to the rate of exchange'; and Mr. Gubbay, in representing the views of the Government of India, had no hesitation in saying, 'In the Government of India's statement, the problem as it appears to them is the consideration of the means of securing the greatest practical stability of the rupee in terms of the sovereign.' At almost every stage in the evolution of the currency system, the difficulties of Government have loomed large ; and Government all along have looked at the problem more from the point of view of an interested party than that of a custodian of public interests.

¹. *Report*, para. 76.

It is refreshing, however, to note a return to common sense in the report of the Babington Smith Committee. They rightly pointed out that 'exchange stability is an important facility rather than an essential condition. There are many instances, including that of India herself before the closing of the mints, which show that trade had flourished and can flourish with a fluctuating exchange. The conditions are somewhat more speculative, but the difficulties that may arise are not insuperable, and the banks are not slow to supply the machinery that enables the merchant to cover his risks'.¹ Pronouncements like these are a complete vindication of those witnesses who, in their evidence before the Herschell and Fowler Committees opposed the policy of Government on the ground that it was 'a mistake to link the maintenance of the standard of value of any country with the incidental and varying circumstances of exchange'.²

In spite of this correct estimate of the value of exchange stability, it is curious to note that the Committee did not completely shake off the influence of the old idea. They recommended the linking of the rupee to 2s. gold in the hope that, when sterling returned to its pre-War parity with gold, the rupee-sterling exchange would again be stabilized. Grant the possibility, would this have meant stabilization of the exchanges with eighty per cent of the countries with which India trades?³ If not, what becomes of

¹ *Report*, para. 34.

² Cf. Robert Barclay's evidence before the Fowler Committee.

³ It is sometimes said in answer to this that over ninety per cent of India's external trade is settled *through sterling* using countries. But a stable *sterling* value of the rupee cannot stabilize the sterling values of the currencies of the other

the argument against the silver standard that was made so much of by the Herschell Committee?

The reader must not conclude from this that exchange fluctuations during the post-War period were not a great evil. Undoubtedly they were, having been largely responsible for a serious dislocation in internal trade. But this instability of foreign exchanges was a *symptom* of a disease rather than the disease itself. The real diseases were political insecurity, chaotic finance and currency inflation in the greater part of the world. Had these maladies been attended to, exchanges would have taken care of themselves. If the currencies of the world had been stabilized, exchange fluctuations would have been reduced to such dimensions as would have induced banks 'to supply the machinery which would enable the merchant to cover his risks'.

The truth is, that stability of exchange is an *international* and not a *national* problem.¹ The problem of exchange stabilization is world-wide in character, demanding for its solution concerted international action. It is not in the power of any country to stabilize its exchanges with other countries when the commodity values of foreign currencies are constantly changing because of deflation in some countries and inflation in others.

As Professor Cassel put it, 'a stabilization of the world's exchange conditions cannot, as apparently

countries with which India trades or avoid in any way the disturbing effect on Indian commerce of the fluctuating value in sterling of these currencies.

¹ Compare the admission now made by Keynes in his *Tract on Monetary Reform*, p. 154 : 'It follows that the exchange cannot be stable unless *both internal and external* price-levels remain stable.'

people sometimes try to imagine, be attained by the separate countries now at once attempting to stabilize their exchange rates. The stabilization of the internal values of the currencies must come first. In that sphere each country can have any aim in view it likes. But it will be unable to control the exchange rate as against another country so long as that other country has not stabilized the internal value of its currency. If the re-establishment of a certain definite exchange rate is deemed desirable, this can only be effected by some sort of international co-operation.’¹

But did not the Government of India stabilize exchange during the period 1900-13? Yes, they did; but the circumstances were specially favourable then. The balance of account was continuously in favour of India; India was continuously borrowing abroad; and many countries were on a gold basis. All that the Government did in these circumstances was to prevent a rise in the external value of the rupee by increasing the supply of rupees. The real test came when the balance of account turned against India, temporarily in 1907 and for a considerable period in 1920 and 1921. On the first occasion, exchange did go down to 1s. $3\frac{2}{3}\frac{3}{4}d.$; and on the second occasion Government found themselves powerless, after dissipating a considerable portion of India’s gold resources in a fruitless effort to control exchange. The course of events has fulfilled almost to the letter the prophecy of Sir Robert Giffen. Asked what he thought of Mr. Lindsay’s scheme, he said to the Fowler Committee, ‘No doubt these schemes, in fair weather times and for a certain time, might work, but I do not think they can be

¹ *Money and Foreign Exchange after 1914*, p. 272.

depended upon permanently.' The Indian currency has proved to be only a fair weather currency.

It is necessary to realize clearly the full implications of the currency system as it was functioning till 1927. Government could not, *without international action* or a common *gold standard*, stabilize the exchange with other countries. All that they could do was to prevent a rise in the *sterling* value of the rupee by flooding the country with currency and so raise the price-level at the Indian ports to the level of prices at the English ports. They had no adequate machinery with which to withdraw currency when there was a fall of prices at the English ports; they could only sit quiet and allow the natural growth of business to produce a corresponding fall of prices. In other words, the Indian standard of value was at the mercy of currency changes in England. It was a dependent standard and a clumsy one at that.

As for exchange stability, it is really useless without international action. Stable exchanges between any two countries, or even a group of countries (which is all that is possible), cannot bind up a stable international commerce, while exchange on other important countries continues to fluctuate, for the markets of the former would be subject to constant exchange-dumping on the part of the inflationist countries. As the *Statist* put it, 'stabilization must be general or it is useless.'

The only wise course under the ever-changing conditions of the world is for each country to take care of its own standard of value and put it on a satisfactory footing, in order to secure public confidence in the stability of its purchasing power.

2. The second leading characteristic of the Indian

currency system is the peculiar part that the Government play in it. In pre-War England, France or Germany, the currency arrangements were totally independent of the Government; and it was generally recognized that Governments were not in a position to judge of the currency requirements of a country in particular years, or in particular seasons of the year, so well as banking institutions in intimate touch with trade. Even financial institutions were not fully entrusted with this task. The possibility of their miscalculating in this matter was taken into account and was safeguarded against by the provision of an automatic process of expanding and curtailing the currency. Here in India, Government have been attempting too much; they have taken upon themselves the whole task of providing the necessary supply of currency and adjusting it to the varying needs of different occasions—a task not completely entrusted even to a banking institution in any other great country of the world—a task beyond their ability and one that exposes them to undesirable pressure. The expansion of currency benefits some, but injures others; some people, therefore, desire expansion of currency, others curtailment. A government that takes upon itself the duty of deciding between these conflicting interests puts itself in a very difficult position, which it is very desirable for it to avoid if it can.¹ In fact, since the closing of the mints, the Indian currency system has been managed at the whim of the latest official sent out from England. ‘One man could come along and stuff the currency, the next would starve it—there has been no plan at all, nor is there to-day, but always some

¹ *Fowler Committee Report, Minutes of Evidence, Q. 11049.*

fresh experiment advised—a gold mint, prohibitive duties on silver bullion—anything or everything.’¹

A government in a transitional stage is especially susceptible to pressure from interested quarters. The burden of high and rising prices may be an intolerable one for the country, and yet, if a government attempts to carry out a policy of deflation and consequent monetary stringency, it may produce great dissatisfaction in the local money-markets and set in motion the forces of a huge agitation against itself. No government can afford to flout the opinion of commercial interests, much less the Government of India in these days, when determined assaults are being made on their reputation as custodians of Indian interests and when one has only to raise the cry of ‘Indian interests in danger’ to have behind one the entire support of the country. Their undeniable inconsistencies have made even thinking people doubt their bona fides in currency matters. For instance, Government had no hesitation in endorsing Mr. Datta’s view that high prices were good for India as a whole when it was considered necessary to justify the continuance of a particular policy, but when the currency system of the country had to be changed in order to obtain relief from certain embarrassments, they threw overboard all their old dicta about the beneficent effects of high prices and asked the wondering public to approve of a high rate of exchange, because of the tendency of such a rate to produce a beneficent fall of prices. Such complete changes of front are likely to shake public confidence in the bona fides of the Government; and the only wise policy for a government in

¹ *Chamberlain Commission Report*, Minutes of Evidence, Q. 9519.

such a position is not to take upon itself the duty of deciding between conflicting interests in currency matters.

The Government of India further attempt to regulate exchange by methods that involve 'a large and continuous amount of management, which affects the sales of Councils, which affects the purchase of silver, which affects the movements of bullion in so many respects that the element of management must be conspicuous until such times as additions to the currency are in the medium in which the balance of trade is liquidated'.¹ It is often said in defence of this element of management that of no country was the exchange and currency left entirely unregulated, even in pre-War days. But there is no real analogy between the control exercised in pre-War England by the Bank of England and the task undertaken by the Government of India in respect of Indian currency and exchange. In pre-War days it was one thing to prevent exchange from falling below gold points and regulating the outflow of gold in gold standard countries; it was quite another thing to regulate the exchange of a country based on inconvertible paper or coin currency. In the one case, the par of exchange was settled by natural causes; in the other the regulating authority attempted to fix artificially *the very parity* of exchange. Government control in the second case was not only futile but positively mischievous, and that is why the Brussels International Conference condemned Government interference in exchange. It is true, as Sir Basil Blackett pointed out to the Hilton Young Commission, that 'once you have notes

¹ Sir Stanley Reed before the Chamberlain Commission (*Report, Minutes of Evidence*, Q. 10151).

in circulation, there must be management, whether it is an exchange standard or a gold standard', and that 'any currency system that is known is, in a sense, a managed or a "manipulated" system, in so far as discretion is exercised in the control of credit through the discount rate'.¹ It may likewise be admitted that the post-War conception of the gold standard has passed away a good deal from the automatic idea and no longer regards the settlement of a bank rate an almost mechanical function arising from the movements of gold, one way or the other. But the function of regulating prices and controlling credit by means of a discount policy is essentially the function of a true central bank and not of the Finance Department of a Government.

But, apart from this general objection, there are special objections to Government interference in exchange and currency in a dependent country like India. Nothing is more calculated to arouse ill will against England than the widely prevalent idea that the currency policy of Government is determined more by the interests of the London money-market than by the real needs of India. And unfortunately this idea is not entirely baseless. It is wrong, for instance, that the balances of India should be administered in London, at the India Office, by gentlemen who are bankers in that city, because public interests and their interests as bankers are bound to be occasionally in conflict.² There is no justification whatever for the common practice of the Secretary of State to withdraw colossal

¹ *Report, Minutes of Evidence, Q. 9985.*

² See Mr. F. C. Harrison's evidence before the Chamberlain Commission (*Report, Minutes of Evidence, Q. 10193*).

sums of State money (for which he has not the slightest use) from India to London, only to find himself obliged to lend money to private borrowers in London in such profusion that—to quote Lord Swaythling's words in the House of Lords on 14 November 1912—'It is well known that so large were the amounts lent at one time this year by the India Council that there was a scarcity of the securities (which the India Office demanded against loans) among the approved borrowers, and the India Council therefore lent large sums to clearing banks at lower rates than they could have lent them to the approved borrowers, supposing that there had been more securities available.' Nor is there any adequate reason why the Secretary of State should 'play exchange banker for the benefit of either European buyers who desire to lay down funds economically in India for the easy purchase of Indian products, or certain sections of the export trading community in India who want to sell their bills to the local exchange banks at the lowest and most favourable rates for themselves'. There is much in this business that lends itself to condemnation and justifies the verdict of a retired Indian official: 'Where a country is an appendage of another more powerful one, the latter usually takes control. In canine language, it wags its own tail, or, to adopt a more appropriate metaphor, the big brother takes charge of the little one. This course has certain advantages in the matter of centring financial management and is certainly to the taste of the elder brother. But a real danger exists, that the younger goes to the wall and is left to pick up the scraps of his senior's well-furnished table.'¹

¹ F. C. Harrison in the *Economic Journal*, (September 1917).

One of the most serious consequences of this arrangement was the dangerous division of responsibility for the control of credit and the currency policy in the country. Government, unlike the case with other great trading countries of the world, exercised direct control over currency in general and over the note-issue in particular. The credit situation was controlled, as far as it was controlled at all, by the Imperial Bank. The banking and currency reserves of the country being separate could not be used in the most economical and efficient manner. With divided control, there was every likelihood of divided counsels and failure to co-ordinate. The only way to improve the situation was to concentrate control in one hand. In other countries that single controlling hand was that of a central bank.¹

3. The third main defect in the system was the cumbrous duplication of reserves² and the absence of any statutory provisions ensuring their maintenance at an adequate size or their use in an effective manner.³ For the purpose of maintaining the value of the token currency, the Government of India held two reserves—the Paper Currency Reserve and the Gold Standard Reserve; but there was no clear line of demarcation between the purposes for which the two reserves were respectively utilized, and a certain amount of overlapping had become unavoidable owing to the interchangeability of rupees and notes. 'Thus, though the original function of the Paper Currency Reserve was to provide for the convertibility of notes into rupees, this function became of necessity supplemented by that of

¹ *Hilton Young Commission Report*, para. 20.

² *Ibid.*, para. 21.

³ *Ibid.*, para. 15.

maintaining the external value of the notes. On the other hand, while the original function of the Gold Standard Reserve was to maintain the external value of the silver rupees, its use operates to some extent in maintenance of the external value of the notes.¹ There was, moreover, no organic relation between the total volume of token currency and the amount of these reserves. The statute governing paper currency provided for *no minimum* percentage of gold or sterling securities being held in the reserve as cover against the notes. Nor was there any such fixed relation in regard to silver rupees, the amount actually carried to the Gold Standard Reserve depending on the price at which the silver was purchased and not upon the amount of the outstanding rupee circulation.²

4. The fourth grave defect in the system was its failure to ensure automatic expansion and contraction of currency. On occasions, the obligation to buy sterling exchange had been discharged by Government without any corresponding expansion of domestic currency; the purchases were in the first instance made against treasury balances, and the currency expansion was left to be effected subsequently at the discretion of Government. More serious was the absence of an automatic process of *contraction* when the currency was

¹ *Hilton Young Commission Report*, para. 13.

² See *ibid.*, para. 15. Compare also Sir Basil Blackett's comment: 'I do not think the present system is really very simple, and there is the further difficulty that the amount to be held in the Gold Standard Reserve itself has never been defined. Various estimates have been given at various times as to what the maximum is: but no one, I think, has ever definitely laid down the maximum figure, nor have the purposes of the Gold Standard Reserve ever been formally defined before the public' (*ibid.*, Minutes of Evidence, Q. 171).

redundant. Even when, in order to support exchange, Reverse Councils were sold by Government, there was no certainty of corresponding contraction of currency being effected, as was clearly brought out by the following table prepared by the Controller of Currency.¹

Year	Amount of Reverses sold	Rupees received for Reverses sold (lakhs of rupees)	Amount of contraction effected
1907-8-9	8,058,000	12,16	12,16
1909-10	156,000	24	nil
1914-5	8,707,000	13,16	1,05
1915-6	4,893,000	7,38	34
1918-9	5,315,000	7,08	nil
1919-20-1	55,532,000	47,14	43,68

At times, the Gold Standard Reserve was used to borrow from instead of simply to withdraw from, and when this happened, Government increased their capacity to meet sterling without making a corresponding contraction in the circulation.²

It was, moreover, a common practice when Reverse Councils were sold to meet them from surplus treasury balances in London, and in so far as this was done, the rupees and notes paid in India by purchasers of Reverse Councils went into the public deposits at the Imperial Bank and increased its cash ratio, becoming thereby a positively *inflationist* influence. For instance in 1920, when Government sold Reverse Councils on a large scale, the effect, so far as contraction of currency was concerned, was partially neutralized by an increase

¹ See *Hilton Young Commission Report*, para. 16.

² *Ibid.*, Minutes of Evidence, Qq. 284, 847-57.

in the aggregate deposits of the Indian banking system as a whole to the tune of $23\frac{1}{2}$ crores.¹

The system thus failed to satisfy the most essential requisite of a sound currency, namely *stability of purchasing power*. It failed in this respect to a much greater extent than the old freely minted rupee did. This aspect of the question has already been discussed at length and the connexion between high prices and the pre-War currency system has been shown. It is true that the ordinary man in the street has not even heard the phrase 'sterling-exchange standard', but he does know that his rupee does not purchase the same number of commodities as before. He does not know the reason why, but he has a vague feeling that Government are playing upon him some strange trick. This is a very serious matter for a Government, for, to use the words of Professor Nicholson, 'it is a bad thing for a country when the masses of the people begin to feel that something is wrong with the currency.'

5. The Indian system lacked another essential requisite of a sound currency, namely elasticity. In order to provide for seasonal variation of currency, due to the demands of trade for financing the movement of crops, the currency authority had been allowed, on the recommendation of the Babington Smith Committee, to issue currency notes up to twelve crores against hundis or internal bills of exchange; but this system had not worked smoothly at all for several reasons which are explained clearly in the following passage taken from the oral evidence of Mr. Denning, Controller of Currency, before the Hilton Young Commission.

¹ See *Hilton Young Commission Report*, Appendix 4, Kisch's memorandum and *ibid.*, Minutes of Evidence, Qq. 10844, 11087-8.

'In the first place, the Imperial Bank find considerable difficulty in getting the necessary amount of genuine hundis to place in the reserve against the note-issue, and both last year and the year before they had to resort to inducing firms which have hitherto financed themselves by cash credits to finance themselves by bills in the place of cash credits.¹ These bills, although they represented a real demand for finance for trade, did not represent any definite goods or commodities. They were in effect manufactured bills substituted for cash credits. Another difficulty is the decision as to how the currency shall be expanded when necessity requires it—as to whether it shall be expanded by issuing notes against Treasury Bills put into the reserve in London or by issuing notes against hundis in India. The bank during the last two years, mainly because it certainly does not gain anything and may lose something by taking these loans, has always been pressing Government to increase the currency against Treasury Bills in London. On the other hand, Government, in order that they may keep their resources in London more liquid, do not wish to tie up their resources by placing Treasury Bills in the Paper Currency Reserve to a greater extent than they are compelled to do. Therefore, during the last two years there have always

¹ See Sir Basil Blackett's evidence on this point (Minutes of Evidence, Qq. 299, 304). Compare also F. V. Rushworth: 'The result is really that it is only a bill in reduction of an overdraft and not a bill against goods which remain to be paid for' (ibid., Q. 7729). One of the managing governors of the bank, however, contended that 'the business which is behind these advances is the business which does create the true seasonal demand and that the advances do gradually liquidate themselves' (ibid., Q. 9657).

been discussions between the managing governors and myself as to which of these two methods should be employed. We have always come to an agreement in the end, but it is a definite disadvantage to have two systems of expanding the currency working side by side under the control of two different authorities. The third point, which I mention incidentally, is the possible loss to the bank. It is very difficult to estimate this loss and Government have in the past refused to make the bank any allowance for this loss. . . . The nature of the alleged loss is this: the bank rate is at 5 per cent, we will say, and the hundi rate, we will say, is at $5\frac{1}{2}$ per cent. The bank rate then goes up to 6 per cent, and in order to keep the necessary amount of cash in hand, the bank has to borrow from the Government at 6 per cent, while it has a large amount of money outstanding on bills at a lower rate. That, I think, is one of the main ways in which it is alleged that a loss occurs. Another thing which I was going to mention is the stamp duties on the hundis which are manufactured. The stamp duty on hundis is regulated by a graduated scale, but it works out to about Rs. 9 per 10,000. The stamp duty on a promissory note is at a fixed rate of 4 annas. So, in order to induce firms to finance themselves by hundis rather than by cash credits for which they would give promissory notes, the bank paid the cost of the stamp duties on the hundis which were manufactured. Government after some discussion consented to re-imburse the cost of these stamp duties to the bank.'

The Indian system further failed to provide for a measure of elasticity in the expansion of currency in case of great *financial crises*, when the need for additional cash for the support of credit is urgent. In

such cases it is necessary to provide for an emergency issue of currency on special terms, but no express provision of this sort existed in the Indian system.¹

6. Another chief defect of the existing system was that it was far from simple, the real basis of the stability of the rupee not being readily intelligible to the uninstructed public.² The Indian currency consisted of two kinds of token, paper notes and silver rupees, which under the law were mutually convertible to an unlimited extent. Events had, however, proved that the maintenance of the convertibility of the note into silver rupees of the existing fineness was possible only so long as the price of silver remained at such a figure that the bullion value of the rupee was not higher than its exchange value. In other words, at the existing exchange value of the rupee, the system would be upset if the price of silver rose above forty-eight pence per standard ounce.³ A further complication arose from the fact that in addition to these two kinds of token, the sovereign was till 1927 legal tender for ten rupees and the Government were under a legal obligation to pay ten rupees when sovereigns were presented for encashment. As, however, the price of the gold was considerably above this parity, the sovereign had disappeared from circulation and was not issued by or tendered to Government.⁴ The system was thus complicated, not easy to understand or explain, and open to misrepresentation in some respects.

7. The preceding review of the main defects of the currency system naturally raises the question of

¹ *Hilton Young Commission Report*, paras. 18-9.

² *Ibid.*, para. 21.

³ *Ibid.*, para. 14.

⁴ *Ibid.*, para. 10.

reform—a question by no means peculiar to this country. Everywhere the currency reformer is dissatisfied, not only with the conditions as they exist to-day, but even with the conditions that prevailed in pre-War days, for in no country has the monetary unit ever been perfectly stable in its purchasing power. For instance, one of the best American economists spoke contemptuously of the American standard of value even in pre-War days, and held it responsible for a ‘colossal social wrong’. ‘It is a great pickpocket,’ said he, ‘robbing first one set of people and then another to the tune of millions of dollars a year, confounding business calculations and convulsing trade, stirring up discontent, fanning the flames of class hatred and perverting politics.’¹

But is stability of purchasing power the highest ideal to be aimed at in devising a standard of value? It is true that, if prices fluctuate, contracts to pay money at a future date are affected to the prejudice either of the creditor or the debtor, for the obligation, which ought to remain constant, varies in reality with the greater or lesser purchasing power of the standard. But it may well be questioned, ‘whether the strict idea would not require that the constancy of obligation aimed at should be to render the same *labour* rather than to transfer the same commodities, so that the sacrifice of toil in repaying an obligation should be the same as that which was involved in its creation.’²

But, apart from this abstract criticism, there are

¹ Dr. Fisher.

² Gold and Silver Commission. Compare also Dr. Gregory’s evidence before the Hilton Young Commission (*Report, Minutes of Evidence* Q. 12797) in which he pleads for some mechanism to be devised to give the consumer the benefit of lower prices which increased production brings.

practical difficulties in the attainment of this ideal. All commodities and services do not exchange their relation to the standard simultaneously and *pari passu*, for the change may arise from the circumstances governing different commodities themselves. And, as was remarked by the Gold and Silver Commission, 'even if it were practicable to adjust the standard in correspondence with an increase in the supply of any class of commodities or services, the result would be to alter its relation to things not comprised within that class, the supply of which either had not increased—or not to the same extent—and thus bring about the very evil that it was sought to remedy.' A theoretically perfect standard of purchasing power is thus unattainable.¹ As Sir David Barbour put it, 'There never was, and never can be, such a thing as a fixed and invariable standard of value which will measure any quantity of wealth in the same way and with the same accuracy as a yard-measure will measure length'.

Nevertheless, anything that is likely to give the monetary standard a greater stability than it has at present will be distinctly a change for the better. It may not be possible to give it a uniform purchasing power for *all* classes of purchasers, but, even if it has uniform value *on the whole* and for the *average* purchaser, it will be a distinct improvement on the present state of affairs. This is the main idea behind the various schemes for stabilizing the *general level of prices*.

8. The simplest of these is the issue of inconvertible paper, in quantities so proportioned to the increase in business, that the total volume of currency multiplied

¹ Compare Professor Marshall in the memorandum submitted by him to the Gold and Silver Commission.

by its average velocity of circulation will bear the same relation to the total business at one time or at any other time. But its chief drawback is the temptation it places in the hands of Government to over-issue the currency, and 'sad experience teaches that irredeemable paper, while theoretically capable of steadying prices, is apt in practice to be so manipulated as to produce instability'.¹

The least objectionable of these schemes is the one associated with the name of Dr. Fisher, though he was by no means the sole author of it. It was intended to stabilize the American dollar, but it is equally applicable to the problem of stabilizing the rupee. It abandons the practice of adopting a particular commodity as the unit of value and substitutes for it a 'token' or 'certificate', representing a definite series of quantities of given commodities and constituting what may be called 'a composite unit'. It proposes to vary the weight of gold in the dollar, or rather behind the dollar, and shifts it up or down according as the purchasing power of the dollar (as measured by the index number of prices) goes down or up. Its object is to increase the weight of the dollar just fast enough to compensate for the loss in the purchasing power of each grain of gold, in other words, to have a fully 'compensated dollar'. It thus aims at substituting a dollar of fixed *purchasing power but varying weight*, for a dollar of fixed weight but varying purchasing power. Dr. Fisher's fully developed plan contemplates an international system and attempts to combine together the following three separate functions : (1) the function of maintaining an exchange par with a selected country; (2) the

¹ Fisher and Brown, *Purchasing Power of Money*.

function of regulating the currency in that selected country by a bureau of currency regulation through purchase or sale of gold at a varying official price; (3) the function of fixing this official price of gold according to the index number of prices ascertained by an international statistical office. How the plan is likely to work is explained by him in the following passage: 'For instance if, a year after the system was started, it were found by the statistical office that prices had risen one per cent, this office would, in order to neutralize the rise, issue an official declaration to the bureau of currency, fixing the official price of gold at substantially one per cent lower than the ruling market price. At this cheap price the public would buy gold bullion of the Government and surrender currency in return. Therefore the currency would be contracted and general prices would fall until no more gold was called for, or until there is declared a new official gold price. Should the next official gold price be set above the market price, the Government would become a buyer of gold and would thus re-issue some of the currency previously called in, or if need be, issue new currency.'

The scheme outlined above is free from the danger of official manipulation of currency. The official who would regulate the currency would buy and sell gold at the pleasure of the public at specific prices fixed by others. 'He would have', as Dr. Fisher explains, 'no more choice than a broker who is ordered to buy or sell at prices specified by his customers.' Nor is there much danger of abuse or fraud in the statistical office, as its work would be based on published market prices and done in the light of day.

Dr. Fisher further claims that his plan is free from the danger of inflationist legislation. 'No individual

nation could inflate the currency without withdrawing from the international arrangement and isolating itself accordingly, while it is quite inconceivable that all the civilized nations of the world should voluntarily and simultaneously commit the folly of inflationist legislation.¹

Although Dr. Fisher contemplates the regulation of the world's currencies by buying and selling gold, silver or any other commodity could be used instead. He himself deprecates the spectacle of India 'clinging to the skirts, as it were, of the gold standard countries following that erratic standard wherever it may lead them, although it is within her power by exactly the same machinery to keep her course steady'. The Government of India are already in close touch with both the exchange and the bullion markets, and the Indian Department of Statistics and the Labour Office in Bombay can easily improve their methods of compiling index numbers of prices. To all appearance, then, conditions in India seem fairly favourable to the adoption of Dr. Fisher's plan.

It is no use, however, underestimating the difficulties of putting into force a scheme of this kind. It is best to be cautious in matters of this sort, for there are no cases on record in which any standard has attained stability of purchasing power under changing conditions. International co-operation in currency matters to the extent required in Dr. Fisher's plan is not easy to secure. As Professor Cannan once put it, 'We barbarous mankind are still divided into suspicious and malevolent tribes, occupying territories which we regard as our tribal properties. There is not the slightest

¹ Fisher and Brown, *op. cit.*

chance of the various nations agreeing on any uniform system of limitation of currencies by prices.'¹ Nor is the practical difficulty of measuring the purchasing power of the monetary unit or of working a currency system merely by reference to an index number of prices a negligible one. 'Any available index number is bound to be affected by the price-variations in particular commodities arising from non-monetary causes, such as harvest conditions, new inventions, discovery or development of new sources of supply, or exhaustion of those that exist. A blind adherence to the index may hide a real departure from the path of stabilization.'² Moreover remedial measures are really needed, not *after* the index reveals a change but *before* a price-movement is actually afoot for, 'it is not the *past* rise in prices, but the *future* rise that has to be counteracted'.³ In order, therefore, to prevent short period oscillations of the credit cycle, an official index number based on the actual trend of prices would not suffice of itself to give a satisfactory regulator of values; the controlling authority will have to take into account, in addition to actual price movements, other criteria such as 'the state of employment, the volume of production, the effective demand for credit as felt by the banks, the rate of interest on investments of various types, the volume of new issues, the flow of cash into circulation, the statistics of foreign trade and the level of exchanges'.⁴ The policy can only be perfected by long experience.

¹ The *Economic Journal*, (June 1924).

² Hawtrey, *Monetary Reconstruction*.

³ Ibid.

⁴ Keynes, *op. cit.*, pp. 188-9.

Further, if gold coins form the greater part of the monetary supply of gold, and these remain unaltered, an alteration of the price of gold will in short periods have only an evanescently small effect upon prices.¹ Apart from these difficulties, changes in the weight of the standard coin will have to be limited to very small amounts, say to 2 or $2\frac{1}{4}$ per cent per annum, if the treasury is not to be exposed to the activity of speculators in bullion. At any rate, the scheme can work only after prices have gone down to something like a stable normal level and ought not to be adopted except by international agreement, at least as regards a few important countries, if it is intended to secure stability of both internal prices and exchange rates.

A variation of this plan was suggested recently by Mr. Keynes for Great Britain. Under it, the currency authorities in England were required to give up stability of the dollar exchange at the pre-War parity as their chief objective and adopt instead *stability of sterling prices*, as their *primary* task. The currency was to consist, not of gold but of inconvertible paper, the value of which would be controlled through the increase or decrease in its *quantity* by means of manipulation of the bank discount rate. The bank rate and the credit policy of the Bank of England were to be directed, not with reference to the pre-War criteria of the amount of cash in circulation (or gold reserves in the banks) or the level of the dollar-exchange, but with reference to an official index number of a standard composite commodity 'the precise composition of which could be modified from time to time in accordance with changes in the relative economic importance of its various com-

¹ Cassel, *Theory of Social Economy*, p. 483.

ponents', as well as to other symptoms of under or over-expansion of internal credit such as the state of employment, the volume of production, the effective demand for credit as felt by the banks, etc. The Bank of England would have a buying and a selling price for gold just as it did before the War, and this price might remain unchanged for considerable periods, just as the bank rate does at present. Gold movements in and out of the country would keep exchange rates relatively stable as long as the bank did not change its rate for buying and selling gold. Thus 'the exchange rates would not move with every breath of wind, but only when the bank had come to a considered judgment that a change was required for the sake of the stability of sterling prices'. Gold would be attracted to the country or turned away, not through changes in the price-level as under the gold standard, but through alterations in the amount of gold given for the paper money. Gold would be needed neither for circulation as a coin nor for currency reserves or convertibility of the media of exchange. Apart from its use as a war chest against emergencies, its only role would be to serve 'as a means of rapidly correcting the influence of a temporarily adverse balance of international payments and thus maintaining a day-to-day stability of the sterling-dollar-exchange'.

This plan, though in some respects an improvement on Dr. Fisher's scheme, is not in essentials very much different from it. Both involve a changing ratio between money and gold according as the value of gold changes. Both mean regulation of prices by reference to some index number of prices constructed scientifically and applied on an impartial plane. Both are open to the objection that they expose the currency authority to the charge of 'tampering with the standard of value'

too frequently. Both require international co-operation if instability of exchange rates is to be avoided. The main difference between the two is that while Dr. Fisher's scheme corrects price changes by altering the amount of gold represented by the unit, the plan of Mr. Keynes 'makes the changes in the amount of gold represented by the unit a *result*, rather than a cause, of price stability, price stability being accomplished through the discount policy'.¹ Obviously, Mr. Keynes' scheme is more suited to English than to Indian conditions, for whereas the deposits of banks in India are about 200 crores, notes another 200 crores and silver rupees about 150 to 200 crores, in England the bank deposits exceed 2300 millions and notes are about 400 millions as against a silver circulation of only 50 millions.² In India, contraction of currency means, on this account, a reduction of notes and rupees rather than of bank deposits, but in England contraction takes place mainly through a decline in the bank deposits, for which the discount rate is an effective weapon. Although, therefore, a discount policy is not to be despised even in India as a means of contracting the circulation, of which bank deposits form nearly one-third, it cannot be as effective or as smooth in working as in England. But the most weighty objection against both Dr. Fisher's plan and Mr. Keynes' scheme is that neither of them will be understood easily by the lay-mind, with the result that there will be little pressure of public opinion against improper handling or mismanagement through ignorance or improper motives.

¹ See Parker, *European Currency and Finance*, vol. I, pp. 54.

² See *Hilton Young Commission Report*, Minutes of Evidence, Q. 10787.

Moreover, managed currencies of this sort assume a degree of sound currency knowledge and impartiality on the part of the currency authorities, which recent experience has shown does not generally exist. The public has been taught by bitter experience to distrust currency systems that savour too much of management, and nowhere is the distrust of the public in its currency system more widespread than in India at the present moment. Until both the public and the Government are properly educated in currency matters, such scientific plans must wait.

9. The only alternatives left would seem to be (1) the perfection of the sterling exchange standard, (2) the adoption of a gold-exchange standard, and (3) the adoption of a gold standard proper with or without a gold currency. Apart from the objections urged against an exchange standard in the preceding pages, under either of the first two systems, however improved, the silver rupee would vanish as soon as the price of silver rose above the melting point. As under any exchange standard the note would be internally convertible into silver rupees only and not into gold, this would necessitate either the stoppage of coinage of the silver rupee of the present fineness and weight, or its replacement by small notes and coins of nickel or of less silver content. Neither would have the simplicity which is essential to secure public confidence, for the mechanism of an exchange standard is too refined for the ordinary layman to understand. 'The right of convertibility upon which its stability is based is one of no direct concern to the general public, and it is unintelligible to the majority. The uninstructed sees nothing tangible behind the token currency to assure its value. These characteristics, inherent in an exchange standard,

make it unsuitable to the needs of a vast community or collection of communities, the various members of which are of all degrees of education, and indeed of all stages of civilization.' In order to satisfy a large body of public opinion that is suspicious of the mechanism of an exchange standard, it is therefore necessary to establish some form of an effective gold standard which will ensure not only the external, but also the *internal convertibility of the token currency of the country into metallic gold*.¹

¹ See *Hilton Young Commission Report*, paras. 24-32.

CHAPTER V

SCHEMES FOR THE INTRODUCTION OF A GOLD CURRENCY INTO INDIA

1. An automatic gold standard is associated in the popular mind with a gold currency in active circulation. Reference has been made to some aspects of this matter in chapter II and reasons given for the view that, in a country like India where cash transactions of a small amount form a large part of the daily business of the people, a gold coin will not be a suitable medium of exchange. But in spite of this fact, the demand for this traditional form of gold standard in India has been too persistent to be ignored by Indian officials. As a result of discussions between Sir Basil Blackett, Mr. H. Denning and Mr. (now Sir Arthur) McWatters, a scheme for the introduction of a gold currency into India was therefore placed before the Hilton Young Commission. The chief objects of this scheme, generally known as the Blackett Scheme, were : (1) to eliminate the threat to the currency inherent in the possibility of a rise in the price of silver by dethroning the rupee from its position as a standard coin of unlimited legal tender, and thus also enabling the constitution of the reserves to be simplified by eliminating the silver therefrom; and (2) to cure the uneconomic habit of the people of holding precious stones as a store of value by assuring them, through the instrumentality of a gold currency, that the same measure which they mete out in gold value by way of investment of deposit with a bank, will be meted to them again in gold value.¹

¹ *Hilton Young Commission Report*, para. 34.

It assumed that the management of the paper currency and the conduct of the Government's remittances would be made over to the Imperial Bank of India, and that rupees would be convertible into gold at the rate of 1s. 6d. per rupee. It provided that *eventually* (1) gold coins and bank notes should be unlimited legal tender and silver rupees legal tender up to fifty rupees only, (2) a statutory obligation should be imposed on Government to give gold coin in exchange for gold bullion at any time on payment of a seignorage to cover minting charges, (3) the bank should be under a statutory obligation to buy gold in the same way as the Bank of England and at a price fixed on a similar basis, (4) bank notes should be made payable on demand in gold coin, and (5) the constitution of the new reserve should be as follows :—

(i) Gold holding should ordinarily be not less than 30 per cent of the gross circulation, but may be reduced to 20 per cent on payment of a tax of 6 per cent on the amount by which the invested portion exceeds 70 per cent. (ii) At least 20 per cent of the invested portion should be gold securities or trade bills drawn in India in sterling and having a currency of not more than three months. (iii) The remaining investments should be Government of India securities up to a maximum of 90 crores and internal trade bills or other self-liquidating assets.

It recognized that the rupee could not be declared *limited* legal tender until an opportunity had been given to holders of rupees to convert them into gold. The authors of the scheme estimated that in the event of such an opportunity being given, about Rs. 110 crores might be presented for conversion by the public. As they did not consider it practicable to provide for the immediate conversion of such a large amount, they

suggested the following stages for the execution of their plan :—

(1) A statutory obligation should be imposed on Government to sell gold bullion (in 400 oz. bars) at par, and to buy gold bullion at par less seignorage. (2) As soon as sufficient gold was available, a gold *coin* should be put into circulation and offered as freely as resources permitted in exchange for notes and silver rupees at currency offices, treasuries, and branches of the Imperial Bank of India, without any definite legal obligation to give gold coin for notes or silver rupees being imposed. (3) After a period fixed by statute (say five years) the liability to give gold coin in exchange for notes or rupees and also for gold bullion on payment of a seignorage should be imposed. (4) After a further period fixed by statute (say five years) the silver rupee should be made legal tender for sums up to a small fixed amount only (say fifty rupees).

It was assumed that during these stages it might be necessary to increase the supply of gold by external borrowing, and to allow the total of gold and gold securities in the reserve to fall as low as 30 per cent. It was estimated that Government would have to sell some 200 crores of silver rupees (110 crores presented for conversion, *plus* about 90 crores already in the reserve)—a quantity which represented 687 million fine ounces of silver, that is, nearly three times the world's silver production in 1923. The sales of silver were to be spread over a period of ten years and the average price realized by Government was expected to be *not less* than 24*d.* per standard ounce. The amount of gold required (on the basis of a note-issue of 189.5 crores) for introducing the scheme in all its stages was estimated to be : Rs. 27.2 crores additional

for the reserve, plus 110 for the conversion of the rupee, total Rs. 137·2 crores or £103 millions. It was supposed that about £15 millions of gold would be required at the time of initiation of the first stage, a further £35 millions within a year, and the remaining £53 millions over a period of ten years. The cost of the whole scheme was estimated by its authors at about Rs. 1·66 crores per annum during the first five years and thereafter from 0·66 to 1·12 crores.¹

2. Guided largely by the expert evidence from outside, the Hilton Young Commission gave their unanimous verdict against this scheme. In order to appreciate fully the decision of the Commission, it is worth while to note the main points of criticism levied against it by some of the well-known authorities on currency and monetary problems.

The first objection raised against the proposal was that it was most *untimely*. The gravity of this aspect of the matter was illustrated by the grave error committed by Germany half a century ago in treating its abandonment of the silver standard and the disposition of its stock of silver as purely national concerns without regard to its world consequences—an error which resulted in a series of catastrophic monetary disturbances, the break-up of the Latin Monetary Union, the severe blow to the silver savings of India,² and the effect upon world prices of a fall of 40 per cent from 1874 to 1896.³ Similar if not much worse consequences were, it was contended, likely to ensue if the growing scarcity of gold was aggravated by the demand for a gold currency

¹ The whole of this paragraph is a condensed summary of *Hilton Young Commission Report*, Appendix 5.

² See *ibid.*, vol. V, Dr. Hollander's evidence.

³ *Ibid.*, evidence of Sir Charles Addis.

in active circulation in any major country of the world. Even without this additional demand for gold in active circulation, several of the world's leading currency experts expected a downward trend of prices. The average annual addition to the world's stock of gold during the sixty years 1850-1910 was only 2·8 per cent while the average annual loss was reckoned at 0·2 per cent. According to Professor Cassel's estimate, the world's accumulated stock of gold amounted to £2,600 millions at the end of 1910, and £3,623 millions by the end of 1923. If economic progress was to continue at the pre-War rate, it was therefore necessary that the gold supplies of the world should increase at the rate of 3 per cent annually.¹ But the actual production of gold amounted in 1924 to only 79·4 millions, representing only 2·19 per cent of the accumulated gold stock at the beginning of the year. In 1925, a production of 3 per cent of the stock at the commencement of the year would have represented £110·9 millions, while the actual production was only about £81 millions. Professor Cassel therefore came to the conclusion that the present height of gold production was entirely insufficient² for keeping up what we were accustomed, before the War, to regard as a normal economic progress, requiring an annual gold production of 3 per cent of accumulated stock, and that, with an unrestricted demand for gold, a

¹ This estimate was accepted by the Right Hon. Montagu Norman and Sir Charles Addis (*Hilton Young Commission Report*, Minutes of Evidence, Q. 13698).

² 'According to this standard the annual production of gold ought now to reach a figure of about £120,000,000, the actual production, however, stands at about £80,000,000 and thus does not cover more than two-thirds of the need.'—Professor Cassel in *The Times*, Trade Supplement, 29 June 1929.

growing scarcity of the metal with the consequence of incessantly falling prices was inevitable, unless a very important increase in the world's gold production took place, or unless the world was going to acquiesce in a slower degree of economic progress than that which characterized the period 1850-1910.¹

Mr. Joseph Kitchin, while differing from Professor Cassel in the details of his estimates, came to precisely the same conclusion. According to his calculations, an average addition of £64,000,000 per annum to the gold *money* stock of the world was required during the period 1926-35 to keep pace with the world's normal rate of economic development, while his estimate, based on the existing Indian monetary system, fell short of this figure by about 55 per cent. On the basis of his estimates, he made a forecast that the general level of gold prices in the world would fall in 1930 to about 120, taking the price-level in 1913 to be 100, and should be falling even at this figure.² He was, therefore, of opinion that, unless great economy in the use of gold, both in regard to its use as a commodity and in respect of its use as money, was exercised, we would have to look forward to a prolonged period of steadily falling commodity prices, and of a diminishing degree of prosperity and economic development throughout the civilized world, including India.³

Dr. Hollander, a leading American economist, entertained much the same apprehensions as to the serious consequence of any such wholesale and unfore-

¹ *Hilton Young Commission Report*, Appendix 92.

² As a matter of fact, in November 1929 the *Economist* index number stood at 126·9 (1913=100) and the United States Bureau of Labour index number at 135·2.

³ See *Hilton Young Commission Report*, Appendix 82.

seen requisition upon the world's available gold supply as was implied in the Blackett Scheme, and summed up his view of the matter in the statement that 'at this particular time, and through the only channels practically available, the drawing into India of the amount of gold proposed can only be accomplished at the cost of insecurity to those countries which have restored their monetary standards, and at the risk of delay to those countries which are now seeking with reasonable promise to do so, and that this uncertainty and delay are likely to produce higher interest rates, business disturbance, and economic depression, with inevitable repercussions upon the economic well-being and commercial prosperity of India'.¹

The Right Hon. Montagu Norman, the Governor of the Bank of England, was equally emphatic on this point. The absorption by India of about £103 millions of gold (in addition to normal requirements for the arts, hoards etc.) would, he thought, lead in England to the curtailment of credit, to a rise in the rate of interest, and probably to an indefinite postponement of the proposed amalgamation of the notes of the Bank of England and of the Treasury.² He feared that the difficulties of both classes of central banks in Europe, those which had put the gold or the gold-exchange standard into operation, and those which were only aiming at doing so, would be greatly increased, as regards the first, in maintaining the standard, and as regards the second, in achieving it, owing to the enhanced value of gold which would arise from the diminution of supply. He believed that the financial effect on Europe and allied countries would be

¹ *Hilton Young Commission Report*, vol. V, p. 277.

² *Ibid.*, p. 186.

a rise in the rate of interest owing to the curtailment of credit, and that the economic consequences would be to increase the cost of production in industries, to restrict the volume of international trade, to lower general prices and *pro tanto* increase the real burden of foreign indebtedness.¹ As to the reaction on India of a fall in gold prices, he expected it to be, on balance, unfavourable, though as compared with other countries, the effect of the fall would be mitigated by India's favourable balance of payments and the advantage she enjoyed in the quasi-monopolistic nature of some of her exports.²

Sir Charles Addis went even further. He feared that an extreme fall in the value of silver would have a serious reaction on *gold prices* and believed that 'the consequential changes in prices generally, and in trade conditions, which would be produced, the disturbance to the world's economic peace and confidence, the interference with the long established habits of the people of India in the use of silver, the shock to the reliance of a great country like China upon silver as a medium of currency and a common store of value, could not fail to have important effects upon the *gold prices* of countries in Europe, and indeed in America'.³

It is significant to note in this connexion that Sir Basil Blackett, the main author of the scheme, had himself emphasized the importance of this consideration in the last paragraph of his memorandum, and had definitely indicated the desirability of abandoning the scheme if it was likely to lead to any serious fall in

¹ *Hilton Young Commission Report*, Minutes of Evidence, Qq. 13671-2.

² *Ibid.*, Qq. 13676, 13678.

³ *Ibid.*, Q. 13710.

gold prices. The full text of this important paragraph reads as follows : 'It remains to consider the second question. Can the transition be effected without such a disturbance in the gold and silver markets of the world as will threaten or destroy the utility of gold as a standard of value? If the effect of a decision to attempt the change to gold is going to be to upset the gold standard in the United States of America or in Europe, India has clearly nothing to gain by making the attempt. Even if the change is likely to cause an appreciation of gold by as much as, say, twenty-five per cent, India must hesitate before risking such an upset in her own internal prices as would accompany a fall by twenty-five per cent of world prices. I do not feel competent to pronounce any decided view on this essential point.' During the course of his oral evidence he went so far as to say that he felt convinced that there was a serious risk in a matter of this sort unless there was some preliminary agreement for co-operation among those concerned,¹ and that India was 'as much interested as the rest of the world in seeing that her action does not simply destroy the value of the thing which she is trying to get for herself, because it would cease to be valuable to her if it caused such an instability or such a *fall* in prices as to amount to a complete reversal of the existing equilibrium'.²

The foregoing summary of expert evidence on this essential point makes it perfectly clear that the Commission had ample justification for the view that the attempt to introduce a gold standard with a gold currency into India 'would be very likely to have the consequences' to which Sir Basil Blackett had himself

¹ See *Hilton Young Commission Report*, Minutes of Evidence, Q. 536.

² *Ibid.*, Q. 554.

referred in the paragraph, quoted above, and that it could 'only be accomplished at the cost of insecurity to those countries which have restored their monetary standards, and at the risk of delay to those countries which are now seeking with reasonable promise to do so'.¹

3. The Commissioners' reference to the effects on *other* countries of India's adoption of a gold currency standard has given rise to a widely prevalent misconception that they decided against a gold currency, *not because it was not good for India but because it was not in the interests of other countries*. A careful perusal of the report knocks the bottom out of this gross misrepresentation. It is 'in their reaction *on India* as one unit in the world's trade system' that a fall in gold prices and a curtailment of credit consequent on the increased competition for gold among the countries of the world was considered, on balance, to be unfavourable,² and it is because 'higher interest rates, business disturbance and economic depression' in European countries would have 'inevitable repercussions on the economic well-being and commercial prosperity of *India*' that the Commission recommended a limitation of the demand for gold.³ The same reasons led Sir Purshotamdas Thakurdas, who can hardly be accused of forgetting India's interests, to lay emphasis on 'the advisability of India doing nothing to retard the

¹ See *Hilton Young Commission Report*, para. 53.

² *Ibid.*, para. 37.

³ *Ibid.*, para. 53. Compare also Mr. George E. Roberts, Vice-President, National City Bank of New York: 'India necessarily has a common interest with other countries in the maintenance of general prosperity. She is a large exporter of products, mainly raw materials of industry, the prices of which are affected by the general state of industry over the world.'

reconstruction of devastated Europe, if it can be avoided by a slower and a more natural process of accumulating gold for her requirements'.¹ Both the majority and the dissenting member accepted the views of Professor Cassel and Mr. Kitchin that the future trend of world prices would be downward; and no one can deny that this tendency would be *accentuated* if a gold currency standard was established in India. The world fears a heavy fall in prices and wishes to avoid it if it can. Has India anything to *gain* by accentuating it? If a heavy fall of world prices is likely to produce in the world conflicts between labour and capital, a deepening gloom over both trade and industry, will India on a gold currency standard be able to escape the general depression? If the fall in gold prices increases the purchasing power of gold over commodities, is it to the interest of a *debtor* country like India to accentuate or precipitate it by increasing the demand for gold? Curiously enough, the Indian critics of the Commission who complain against the 1s. 6d. ratio on the ground that it has produced a fall in prices and depressed trade and industry, continue to shout in the same breath for a gold currency, which will depress prices still more. It may be a virtue to be self-conscious and assert that we shall have what we consider best for ourselves, irrespective of its consequences to others, but it is hardly a virtue to satisfy a whim merely to spite them. Other countries will undoubtedly suffer if the fall in prices is accentuated because of our demand for a gold currency; and they will be right in opposing our demand. But shall we gain if we assert our right to do what will injure

¹ *Hilton Young Commission Report*, Minute of Dissent, para. 59.

*all?*¹ It is enlightened selfishness and not philanthropy or political subserviency to endorse the principle of the Genoa Conference resolution in favour of 'some means of economizing the use of gold', and to accept the verdict of the Currency Commission against the introduction of a gold currency into India.

4. Apart from the matter of timeliness, serious doubts were raised about the *soundness* of the scheme in the course of the evidence before the Commission. So disinterested and competent a witness as Professor Cassel found himself unable to accept the estimates on which it was based. He pointed out that as the plan was to be carried through in ten years, it was hardly satisfactory to calculate the gold ultimately required for the reserve on the basis of the *existing* note circulation of 189·5 crores. With the growth in the banking system of India and the development generally of the economic life in the country, the note circulation should be expected to grow at a certain percentage per year. As, during the period between March 1914 and September 1925, the note circulation had risen from 66·12 lakhs to 189·51 lakhs, it was not unreasonable to assume that persistent and systematic efforts to further the use of bank notes would result in the doubling of the note circulation within the proposed transition period of ten years. The 30 per cent gold reserve required under the scheme would therefore mean at the end of the period a reserve, not

¹ Cf. Kisch: 'India cannot afford to be indifferent to what happens outside, because of its reactions on herself. She can consider this question, therefore, entirely from the point of view of her own interests, but her own interests require that she should take account of reactions elsewhere.' *Hilton Young Commission Report*, Minutes of Evidence, Q. 10860.

of 56·9 crores but of 113·8 crores; and the total sum required on this basis would amount to Rs. 194·1 crores or £145·6 millions and not Rs. 137·2 crores or £103 millions, as had been assumed in the scheme. Nor was this all. If the law required a minimum gold reserve of 30 per cent, the central bank would according to all experience keep normally a much larger reserve in order to be on the safe side. Estimating this at 40 per cent, the amount of gold needed for the reserve would ultimately amount to 151·5 crores and the total quantity of gold required for monetary reform would be Rs. 231·9 crores, or £173·9 millions instead of £103 millions.

The scheme assumed that only 50 crores would be needed in the first stage of the scheme on the ground that 'comparatively few hoards would be large enough to buy the minimum quantity sold by the currency authorities'. But in the opinion of Professor Cassel, the size of individual hoards was of no importance because the bullion merchants acting as intermediaries would always be able to present enough silver to buy the minimum quantity of gold. But even if this estimate of the first demand turned out to be correct, it was incomprehensible to Professor Cassel that this amount could be diminished by the 30 crores of gold in the note reserve, for it would be a strange measure for a country wishing to establish a gold standard to begin the operation by completely exhausting the gold reserve on which its note circulation was founded. It seemed to him certain, therefore, that the 30 crores of gold in the note reserve would have to be left untouched, and that the assumed demand for 50 crores would have to be satisfied by gold acquired especially for the purpose. Further, according to the scheme, the minimum reserve to be

allowed was 20 per cent of the circulation, which with the assumed initial note circulation would amount to 37·9 crores, that is about 8 crores more than the then existing reserve. Thus, the minimum quantity of fresh gold required at the introduction of the scheme would amount to Rs. 58 crores or £43·5 millions, that is almost three times as much as the sum calculated in the scheme.

Even this modified estimate took account only of the amount of gold needed for meeting monetary obligations. But the demonetization of silver with the consequent sharp fall in the value of silver was, in the opinion of Professor Cassel, likely to increase the demand for gold in two other ways. Firstly, the existing owners of metallic silver might become eager to exchange it for gold and throw a large amount of silver on the market in order to acquire gold; and this demand might assume the same dimensions as the demand for exchange of silver rupees, calculated in the scheme to represent Rs. 110 crores, or £82·5 millions.¹ Secondly, such *future* hoards as would under the old conditions have been accumulated in silver might likewise be accumulated in gold instead of in silver at least during the transition period, and particularly in the beginning of it.² On the basis of silver imports during the previous five years valued at 30*d.* per standard ounce, this meant an ad-

¹ This was admitted by Mr. Denning, one of the authors of the scheme. *Hilton Young Commission Report*, Minutes of Evidence, Qq. 1524-5.

² Cf. Sir James Brunyate: 'If you have a real gold circulation such as Sir Basil Blackett wants to start, I think you will knock on the head absolutely, or very nearly absolutely, the hoarding of rupees altogether. I think, therefore, that you will want more gold for that purpose.'—*ibid.*, Q. 11464.

ditional demand for gold of about £ 11 millions a year or £ 110 millions during the ten years of transition contemplated by the scheme. Professor Cassel thus came to the conclusion that the extra demand for gold caused by the Blackett scheme would easily attain a figure several times higher than had been assumed by its authors.

A vital and an indispensable part of the scheme was the sale of 200 crores worth of silver at the rate of 20 crores a year at an assumed price of not less than 24*d.* an ounce. But the evidence of experts tended to throw serious doubts on the correctness of this assumption. Sir Charles Addis expected that the effect on the silver market would be qualitatively catastrophic.¹ Professor Cassel did not consider it improbable that the depression in the price of silver would go further than this.² Mr. Keynes considered the figure of 24*d.* suggested by the Indian Finance Department as 'very optimistic', and thought that 'at any rate in the first instance, silver would fall to a *great deal less than 24d.*'³ Mr. Kitchin urged that in view of the following facts, it was bold to expect an average price of 24*d.* per standard ounce to be secured:—

(1) The introduction of gold currency would largely augment the already excessive demand for a metal that threatened to be short in supply and accentuate considerably the trend to falling commodity prices over a prolonged period, which would have its effect on the price of silver.

(2) The proposal to sell 68,700,000 fine ounces annually for ten years necessarily involved a dis-

¹ Ibid., Q. 13704.

² Ibid., vol. III, p. 601.

³ Ibid., Minutes of Evidence, Qq. 12955, 12959.

continuance of the use of new silver for Indian coinage with the result that the amount in effect meant a difference of about 100,000,000 fine ounces yearly.

(3) The consequences to the silver market of having this additional silver hanging over it for ten years were bound to be demoralizing.

(4) The fall in the price of silver following events comparable to the suggested policy, such as the demonetization of silver by Germany in 1871 and the closing of the Indian mints to private coinage in 1893, did not prevent a very large increase in the production taking place, the curves of production and the price for the period following these events being actually complementary (that is moved oppositely in relation to each other).

(5) It was possible that the people of India would lose faith in silver as a result of the degradation of the rupee and consequently decrease instead of increasing the private imports of silver.¹

The separate reports submitted by Mr. Arthur Notman and Capt. H. A. C. Jenson, two recognized authorities in mining engineering, pointed to much the same conclusion. They were of opinion that (1) it was probable that the price of silver would be at least cut in half if the proposal were put into effect ; (2) this would make it difficult, if not impossible, for India to market her silver at a price sufficient to obtain the gold required to redeem the rupees presented for redemption ; (3) the vast store of unminted silver in Indian savings would have its purchasing power cut in half ; and (4) the monetary situation in China and other silver standard countries would be seriously disturbed.

Similar inferences were drawn by Mr. George

¹ See *Hilton Young Commission Report*, vol. III, pp. 531-3.

E. Roberts from his previous experience as Director of the United States Mint of the effects of large sales of silver in the world. In view of the frequent reference to past experience made by the critics of the Commission in support of their case, it is worth while inviting attention to the following extract from the statement of evidence submitted by this witness: 'The statement of the plan makes an estimate that the price obtained may be expected to be not less than 24*d.* per standard ounce. The market price in London this week for spot silver has ranged from 29 $\frac{1}{4}$ *d.* to 29 $\frac{3}{4}$ *d.* I do not know that silver for sale in India for export would bring more than in London. This would contemplate a fall of about 6*d.* as the result of the announcement of the plan and the actual sales. It seems to me that this is a small decline to expect in the circumstances. The first big break in silver occurred in the early seventies of the last century, when Germany and several other countries were demonetizing it as standard money. Germany sold in all about 85,000,000 fine ounces from 1873 to 1879 and obtained 59 $\frac{5}{16}$ *d.* in the first year and 50*d.* in the last, a drop of 9 $\frac{5}{16}$ *d.* in the six years. It may be added that the German Government got better than the lowest prices in these years: the lowest price recorded on the London market in that period was 46 $\frac{3}{4}$ *d.* in 1876, which was *a drop of 13d. in three years.*

'The next decline in silver occurred in the twelve-year period following 1890. About the latter year agitation began for closing the Indian mints to free coinage. The highest price for silver in 1890 was 54 $\frac{5}{8}$ *d.* and the lowest 47 $\frac{3}{4}$ *d.*, a difference of nearly 7*d.* In 1892 the high was 43 $\frac{3}{4}$ *d.* and the low 37 $\frac{1}{8}$ *d.*; in 1893 when the mints were closed the high was 38 $\frac{3}{4}$ *d.* and the low 39*d.*;

in 1894 the high was $31\frac{3}{4}d.$ and the low $27d.$; in 1897 the high was $27\frac{18}{16}d.$ and the low $23\frac{5}{8}d.$ and in 1902 the high was $26\frac{1}{16}d.$ and the low $21\frac{11}{16}d.$ *Thus in three years the price fell from 54d. to 27d., exactly one-half and before it stopped falling it got under 22d., which was 2d. below the price named as the minimum to be realized on the sales under this plan.*

'There was *no talk of selling* silver out of India at that time; simply a fear that the importations might be reduced. As a matter of fact the net importations of silver into India since 1893 have been larger on the average than before that year, but instead of the coinage being free or on private account it has been on Government account.

'I would also call attention to the fact that this great decline in the price of silver *did not cause any falling off* in production. The world's production of silver in 1892 was 153,000,000 ounces, and it has not been so low as that in any year since.

'Silver sold below $24d.$ not only in the years I have named, *but in 1905, 1909, 1910, 1911, 1914 and 1915; in all ten years of the last twenty-five.* I am unable, therefore, to accept the opinion that $24d.$ is a price that will reduce production to the point where supply and demand will find an equilibrium, with India no longer a purchaser in the markets. . . . I would not attempt to give an opinion other than that I think the figure would be *considerably below 24d.*'¹

¹ Compare also Mr. Jas. S. Alexander, Chairman of the National Bank of Commerce in New York: 'My judgment is that the price of silver would decline far below $24d.$ It would appear to be well within the range of possibility that the price might fall as low as $15d.$ and even lower.'—*Hilton Young Commission Report*, Appendix 94.

Against such weighty evidence and the mass of facts adduced in support of it, an Indian critic¹ prefers to rely *exclusively* on his inferences from the German experience of 1871-9, and contends that since the sale of one and a half times the annual silver production in the world produced in the seventies a fall in price of only 15 per cent, it is safe to assume as the probable result of the sale of three times the world's annual supply of silver a fall in silver prices from 33*d.* to 24*d.* an ounce or a fall of 27·3 per cent. But apart from the later experience available, the sale of German silver in the seventies is an unsafe analogy to follow for more reasons than one. In the first place, there has been since then a material change in the conditions affecting the production of silver. It is no longer produced largely on account of its own value ; about 80 per cent of it is at the present time a by-product from ores which are primarily worked for lead, copper, zinc and gold. The action of Germany in the seventies *tended* to check silver production, but the Indian additions to the silver supplies would not, owing to these changed conditions of production, affect any corresponding decrease in production,² with the result that the fall in the price of silver would be very much greater.³ Secondly, India in the seventies continued to be a large buyer of silver for the purpose of coinage as well as of hoards. Under the Blackett Scheme, the dethronement of the rupee would mean a cessation of India's demand for silver for both these purposes. Considering, therefore, the place

¹ See Brij Narain, *Indian Currency Problems*.

² See also Dr. Sprague's evidence, *Hilton Young Commission Report*, Minutes of Evidence, Qq. 15242-3.

³ *Ibid.*, Qq. 1443-7.

which India occupies in the world consumption of silver—in recent years she has taken about one-third of the world's annual production¹—and the large proportion of silver production which as a by-product would continue to be produced in spite of a decline in the price of silver, it was impossible to resist the conclusion that the dumping upon the world annually for a period of ten years an additional amount of silver equal to about one-third of the world's total annual production, would produce a far greater collapse in the price of silver than the German sales of the seventies.

Even if we ignore these new circumstances, it is easy to show that the assumptions made by this critic do not lead to the conclusion at which he has arrived. On 6 August 1926, the date on which the report was published, the Indian price of silver was 28½*d.* (cash) and not 33*d.*; and even a fall of 27·3 per cent would have brought down the price of silver below 24*d.* This, however, takes no account of the possible exchange of silver hoards for gold or the possible effect on China. As a matter of fact, the price of silver actually went down to 24*d.* in October 1926, without an ounce of silver being sold by Government. The actual course of silver prices has thus more than justified the anticipations of the silver experts and the fears of the Commissioners.

¹ See in this connexion *ibid.*, Appendix 94. Compare also Mr. A. C. McWatters' own admission before the Commission: 'But even allowing for the comparatively small effect of the German operations, I myself feel *very nervous* regarding the price that we should be able to get for silver if anything like our maximum figure had to be sold.' Minutes of Evidence, Q. 904. Compare also his answer to Q. 909: 'The factors are too uncertain, but 24*d.* is, to my mind, rather high.'

With a view to reduce the loss involved in the sale of silver and to protect the masses against the inevitable depreciation in its price, it was suggested by Sir Basil Blackett that an import duty be imposed on the imports of silver. But this assumed that India would be able to take up the entire amount of 200 crores sold by Government during a period of ten years—an assumption which even Mr. A. C. McWatters, his collaborator in the scheme, was unable to support in cross-examination.¹ It was, moreover, very doubtful if it would be possible to sell by this means any considerable quantity of silver in India *at a price appreciably different from the world price*, as a fall in the value of silver outside India would not only decrease its demand as a store of value² in India, but would also induce its holders to unload it in the market.³ Even if it were to succeed in keeping up the price of silver in India higher than abroad, it would not prevent the real *national* loss from the lowering of the value of silver in general. Nor would it be easy to take off the duty when the sales were completed, for by selling their silver under the shelter of an import duty, Government would put themselves under a moral obligation to maintain the price of silver for practically all time.⁴

Dr. Hollander, though less detailed than Professor Cassel, was no less emphatic in his criticism of these estimates, as the following extract from his statement

¹ Compare Mr. A. C. McWatters : 'The Indian demand is very hard to estimate; over a period of ten years I should hesitate to say, but I should rather doubt if it would be as much as 200 crores.' Minutes of Evidence, Qq. 927-7.

² As distinguished from demand for purposes of ornament.

³ See Dr. Sprague's evidence, *ibid.*, Q. 15250.

⁴ See Dr. Sprague's cross-examination, *ibid.*, Qq. 15267-8.

before the Commission will show : 'Taking it (the plan) as it stands, and as I understand it, certain essential features invite criticism. The first of these is the automatic precision of the plan—the absence of leeway or margin. Where exact knowledge of facts and conduct exists, such close correspondence is possible, and even desirable, on the score of economy. Where it does not exist, to assume precise and exact measurement is insecure. It may not be treating the matter too lightly to suggest as a parallel an undertaking to provide a garment with conjectured estimates as to certain measurements and with a supply of material not in excess of such estimates.

' May I illustrate this as to the plan in two particulars. The first is as to the immediate gold requirement which the plan involves for the conversion of presented rupees now in the savings of the people of India. It is estimated that the maximum number of rupees now outstanding is 350 crores, of which 150 crores will continue to be required for circulation, 90 crores are in the Government's currency reserve, and 110 crores may be presented for conversion. It is impossible for me to pass judgment upon the correctness of these estimates. I have no doubt they are made with great care and are within the maximum possibilities of estimate. Inevitably, however, *there are uncertainties attending it*. We become more confident in passing to the conversion rather than to the aggregates. Of the 110 crores liable for conversion into gold bars only 50, it is assumed, will be presented forthwith. To do this, the proceeds of a loan of 15 millions sterling, and all the gold in the currency reserve—about 30 crores—will be required, *leaving the reserve bare of gold for the time*. No provision is made for the contingency that more than 50 of this 110 crores may

be immediately presented for conversion into bars, nor that any of the outstanding currency notes, if these are regarded as convertible, may be presented at this time. Presumably as legal tender or as notes convertible into silver they might be so presented. During the first year 35 millions sterling more is to be borrowed, but this will just provide the 30 per cent gold cover for the new bank issue, assuming no note conversion depletes this gold cover. Only the proceeds of the first year's quota of silver sales, 73 million ounces, is to provide for additional rupee conversion of saved rupees.

'The second illustration of this mathematically precise adjustment has to do with the estimated proceeds from the sales of silver. Two hundred crores must be sold in a period of ten years at the rate of 20 crores a year at not less than 24*d.* an ounce. This schedule seems to be a vital and indispensable part of the scheme. In the succeeding testimony the matter of the price of silver will be considered in detail, but the assumption that this amount of silver can be sold at this price and that an absorption will continue regularly with this as the minimum injects into the proposal an element of such disturbing uncertainty as to impair the soundness of the plan. Some measure of uncertainty must attend a commodity sale, but to *make the success of the plan—indeed, to make the plan itself—rely on it to the extent of breakdown, should the contrary be to the case, is an exceedingly grave risk.*'¹

Apart from the unreliability of the estimates, Dr.

¹ During his oral evidence, Sir Basil Blackett was forced to admit the justice of this criticism, as the following extract from his evidence will show:—

Q. 544. One last question. Your memorandum says that the project is a very formidable one and one that should be weighed

Hollander pointed out another serious difficulty in the execution of the plan, namely the question of maintaining parity between the different constituent elements of the circulation.¹ The existing system had the virtue of uniformity in so far as rupees and currency notes were interchangeable; but the proposed plan displaced a uniform or unified currency by a varied or variegated currency and contemplated different conditions at different stages. At the inception of the project, rupees and bank notes ultimately convertible into gold would, for the time being, be inconvertible; at the second stage rupees would continue in circulation, together with bank notes and some amount of gold coin, but the bank notes would be left in an ambiguous position in that their convertibility was to occur only at such times as gold provision therefor existed; and finally upon the completion of the project, rupees in large amounts would remain in circulation as limited legal tender, together with bank notes convertible into gold, and an

carefully. *There are any number of factors which are highly speculative.—Certainly.*

Mr. A. C. McWatters was no less frank when in answer to Q. 946 he said: 'There are two dangers on neither of which I am in a position to give a definite opinion; first, the effect of such operations on the price of gold, with a consequent reaction on India herself through a fall in prices and the disturbance of the currencies of other countries; and secondly, the extremely disturbing effect upon the silver market. I think these are both dangers inherent in this scheme; and I am not in a position to form an opinion on their gravity; but the difficulties do appear to me to be formidable; and if the result of going on to the gold standard were to involve India in dangers greater than the benefits which I believe the scheme would bring, it would obviously be a dangerous proposition.'

¹ See *Report*, vol. V, pp. 277-8.

amount of gold coin. In addition, therefore, to the maintenance of the gold standard as such, India would have to assume an additional burden of maintaining parity between the different constituents of the currency. The existence of a vast supply of token rupees (150 crores) presented a special difficulty for, unless the rupee was to be allowed to go to discount, the amount of rupees must not be in excess of the absorbative power of the country for limited legal tender—an object which could only be secured by Government assuming the obligation to maintain convertibility between the constituent elements of their currency¹.

5. The determining consideration was, however, the *practicability* of the proposal. On this crucial point the weight of expert evidence was decisively against the scheme. It required 15 millions sterling at its inception; 35 millions more *plus* such further aid as might be necessary because of underestimate within the very first year, and 53 millions more spread over a period of ten years. It also involved the sale of three times the annual world production of silver in a period of ten years. A memorandum prepared by Mr. W. Randolph Burgess of the Federal Reserve Bank of New York on the gold production and consumption of the world showed that for the previous three years practically all the world's gold production had been absorbed by the industrial arts and by India, that there were many countries whose gold reserves were inadequate on the assumption that the increase in the gold reserves since 1913 should be commensurate with the increase

¹ On the question of uncertainty of these estimates, the student interested in the subject should note Sir Basil Blackett's admissions in his answer to Qq. 459, 462, 476, 486-8, 492, 503, 521.

in prices and wages, and that there was no free gold available for monetary purposes anywhere in the world outside the United States.¹ It was further pointed out that in the existing circumstances no loans floated by the Indian Government in England or the Continent could compel gold exports from the United States without involving such serious dislocation as might force the European countries off the gold standard.² The Indian Chamber of Commerce of Calcutta, or their spokesman Mr. D. P. Khaitan, might consider it 'an outrage on the Indian nationalist sentiment to ask it to submit to a foreign loan',³ but the authors of the scheme had no illusions on the point and had recognized from the start that foreign credits were essential for the success of the scheme. Sir Basil Blackett had frankly admitted in his oral evidence that 'a decision of this importance in relation to gold in the world could not be taken and acted upon without consultation with the Bank of England and the Federal Reserve Board of the United States', that an excess demand of 100 millions sterling on the gold reserves of the world was 'a startling proposition', that there were 'very formidable difficulties in the way', and that in meeting such a demand the authorities in London and New York were 'faced with the necessity of dealing with a public opinion which has only hazy ideas on the subject of the gold standard and of the amount of gold required, and that shares the fairly common view that a gold reserve is there to be

¹ *Hilton Young Commission Report*, vol. V, pp. 292-4.

² *Ibid.*, p. 295.

³ *Ibid.*, Appendix XXXIX, para. 24 and Minutes of Evidence, Q. 874.

locked up'.¹ The Governor of the Bank of England told the Commission frankly, 'this is not the sort of amount which London can find alone'.² The plan was thus absolutely conditional, firstly upon a large credit in the United States, and secondly, upon this credit being realized *in gold*. The critics of the Commission seem to assume that the Indian demand for credit was the only demand that America had to satisfy, and that the amount of free gold available in the United States was so much in excess of the probable requirements of other countries for monetary reconstruction that 500 million dollars could easily be spared for India without leading to a fall of gold prices. Dr. Hollander and Dr. Sprague, the two American economists who appeared before the Commission, however, thought otherwise. They were of opinion that although the events of the previous ten years had made the United States in a new sense a centre of capital supply, there was in no sense an over-supply of capital in that country. Its own domestic requirements were large and increasing; the demands of partly vacated markets (South America and elsewhere) were urgent; and the capital needed for European restoration and development was very great. All these constituted claims which were entirely in excess of the available fund of capital in the United States seeking investment. They pointed out that the general policy followed by American bankers was that advances of American capital ought to be made only for productive purposes—restoration and development; that in a rough way they should be allocated, that is, the entire series of claimants should

¹ See his answers to Qq. 530, 534, 538.

² *Ibid.*, Minutes of Evidence, Q. 13740.

be kept in mind, and finally that they should not be overtly disadvantageous to the United States. And they made it absolutely plain that no American administration could resist public outcry against an Indian credit which, in the first place, would seem not to fit into the programme of productive use of American capital,¹ and which, in the second place, would be interpreted as hostile to America's great silver industry,² which had much influence and strong legislative representation and whose relation to public sentiment was not that of a monopolistic group but of a *valued*³ and highly regarded phase of American productive energy.⁴ And although it was admitted that something between 1200 million and 1500 million dollars of gold could be withdrawn from the United States without necessitating credit contraction and lower prices, this amount of free gold was not considered by them large enough to make it possible

¹ Cf. Mr. Denning: 'Is there any case known to you in which credits have been supplied for the purpose of supporting gold circulation?—No, there is none.'—*Report*, Minutes of Evidence, Q. 1523.

² Cf. Mr. George E. Roberts: 'The value at this time of the mining properties in the United States which would be put in serious jeopardy by this plan probably is not less than \$ 50,000,000.....Many thousands of workmen employed by the mining, smelting and transportation companies would be involved. The ramifications of the effects of closing down the various operations upon ores producing silver, lead, copper and zinc, are far-reaching.'—*Report*, Appendix LXXXVI, para. 67.

³ Cf. Dr. Sprague: 'It produces seventy-three per cent of the world's production and there are not competing rival markets for that metal in other parts of the world.'—*Report*, Minutes of Evidence, Q. 15273.

⁴ *Ibid.*, vol. V, pp. 278-9.

for the United States to spare for India more than a third of this free stock of gold and yet meet the probable gold requirements of other parts of the world during the next ten or fifteen years and maintain prices at something like the existing gold levels throughout the world.

The leading financiers were no less clear on this point. The Governor of the Bank of England believed that it was not possible to 'touch silver in the United States without at once raising, not only a financial or economic question, but a political question', and that 'it would be impossible for those reasons—for the silver reason—to borrow or to open such credits in the United States for the purpose of carrying out this operation'.¹ Mr. J. Pierpont Morgan of New York gave it as his definite opinion that 'the proposal of such credits would encounter such serious opposition in the United States as would certainly make it extremely difficult and probably even impossible to give India any assurance that she could float the necessary credits in the United States.'² Mr. George E. Roberts felt that none of the three possible participators in foreign loans, Great Britain, Holland and the United States, was in a position to embark on an undertaking of this magnitude.³ Mr. Jas. S. Alexander told the Commission frankly that 'the Federal Reserve Banks could not consider a loan to India for this purpose' and that no private loan in the United States was possible as 'American banks could not advance money for a project that threatened to bring disturbance to American

¹ *Report*, Minutes of Evidence Q. 13740.

² *Ibid.*, Appendix 93.

³ *Ibid.*, Appendix LXXXXI, paras. 13-21.

business nor could they be expected to recommend such a loan to the American investing public'.¹ Finally, Mr. Benjamin Strong, the Governor of the Federal Reserve Bank of New York, who was in a position to speak with authority, considered it impracticable to secure the co-operation of the Federal Reserve Banks in granting the necessary credits to India owing (1) to the damage which the plan would inflict upon American silver mines and the lead and copper mines from which silver is a joint product, (2) to the unfamiliarity of the American market with the financial position of the Indian Government; and (3) to the fundamental defects in the plan itself.² The detailed evidence of these witnesses thus knocks the bottom out of the common belief that the necessary amount of external credit or supply of gold could easily have been obtained.

6. The fourth main consideration against the scheme was the factor of costliness. This aspect of the matter could not be brushed aside lightly in so poor a country as India. India was not a country that could afford luxuries. Her administration was held up in all sides by paucity of funds; moreover, there was no adequate reason why a poor nation like India should allow even a part of her limited resources to be locked up in gold currency, when even a rich country like Great Britain had found it inexpedient to reintroduce a gold circulation on the ground that such a currency would be difficult to obtain in existing circumstances and would be too expensive.³

¹ Ibid., Appendix 94.

² Ibid., vol. V, pp. 310.

³ See report of the Committee on the Currency and Bank of England Note Issues (1925), paras. 42, 43.

Besides these general objections, it was pointed out by several witnesses¹ that the actual cost would greatly exceed the estimate of 1.65 crores per annum during the first five years and 1.12 crores per annum thereafter,² if the demand for the conversion of rupees and notes into gold should exceed anticipation, or if it was necessary to hold a larger gold reserve throughout,³ or if the sale of silver had to be spread over a longer period than proposed, or if the silver fell below 24*d.* an ounce, or if the amount of the foreign loans or the rate of interest paid thereon should exceed the figures assumed in the scheme. Apart from these factors, the scheme took credit for the income to be derived from the conversion of redundant rupees into interest-bearing securities, an income which would become available ultimately whether the scheme were adopted or not. Eliminating this credit, Mr. Kisch's calculations showed a true capital loss of 55 crores and an annual loss of not less than 3 crores a year, besides an indefinite and incalculable amount depending on the extent to which the promotion of gold circulation would check the future natural growth of the note-issue.⁴ Even this estimate took account only of the costs which would devolve upon the Government; but as Professor Cassel pointed out, a correct estimate of the plan was possible only if due note was also taken of 'the loss which the Indian

¹ See in this connexion Mr. A. C. McWatters' answers (*Hilton Young Commission Report*, Minutes of Evidence, Qq. 881-4, 890, 898, 901, 903).

² Even this was considered by Mr. A. C. McWatters as 'too heavy a cost for us to face at the present time at any rate.' *Ibid.*, Minutes of Evidence, Q. 946.

³ *Ibid.*, Minutes of Evidence, Q. 10797 and Appendix 71.

⁴ *Loc. cit.*, Note.

people were bound to suffer in consequence of the artificial depression of the price of silver'.¹ The scheme assumed a fall in the price of silver from 30*d.* to 24*d.* an ounce; and even this 20 per cent reduction was serious enough if account was taken of the whole mass of silver hoarded in India. But if the depression in the price of silver was greater than this, the poorer classes, in whose hoards silver plays a preponderant part, would find their store of value depreciated by perhaps 50 per cent by the action of the Government. Assuming that the release of silver in £ 103 millions worth of rupees might halve the price of silver, Mr. Keynes calculated that 'the gold required would cost about three times the value of silver released; that is to say, the change over would cost India somewhere about £ 67 millions in terms of real resources'. He therefore considered the plan as equivalent to a proposal to 'to expend some £ 67 millions in destroying the purchasing power of the favourite store of value of the mass of the population'.² In the opinion of these witnesses the scheme thus involved grave social injustice to the masses in India whose savings in silver had been accumulated at the cost of denial and sacrifice and were intended to meet contingencies of illness, old age or economic pressure, and the injury it was likely to cause was, therefore, very much akin to the cruelty inflicted by War and post-War inflation upon a great body of population in the west who had found their savings-bank deposits suddenly cut down by a third or a half, as it were by an unseen hand.³ Apart from this direct

¹ Cf. Mr. A. C. McWatters' admission on this point *Report, Minutes of Evidence*, Q. 911.

² *Ibid.*, *Minutes of Evidence*, Qq. 12974, 12978.

³ *Ibid.*, vol. V, pp. 278.

cost, there would be the adverse consequences to trade and industry of the policy of raising the rate of interest and of keeping a tight hold on credit and discount rates that would be necessary in order to attract gold from the gold centres¹ during the transition period.

The Commission had thus ample justification for rejecting this scheme, or for that matter, any other proposals which involved, by the limitation of the right of legal tender attached to the rupee, or by the sale of any large quantity of silver, any severe shock to the silver market, or which required the abrupt attraction to India of any large additional amount of gold for circulation as currency by artificial expedients.

7. The discussion on this question may now be completed by a brief notice of the schemes for the introduction of a gold currency, suggested by Dr. Gregory and Professor Cannan.² Dr. Gregory was of opinion that the introduction of a gold standard did not logically or practically involve the immediate circulation of large quantities but only an extension of the use of gold *in the future*, that is, the opening of the mints to gold, the grant of full legal tender power to gold, and the maintenance at par with gold (though not the immediate right of conversion³ into gold) of all other forms of currency. The correct device for passing over to the gold standard was, therefore, the

¹ Ibid., Minutes of Evidence, Q. 597.

² Schemes suggested by Dr. Ambedkar and Professors Wadia and Joshi were in essentials similar to these, though worked out in much less detail.

³ Dr. Ambedkar went further than this. In his scheme, rupees were not to be convertible into gold, and gold not to be convertible in rupees permanently, but both were to circulate as unlimited legal tender at the ratio fixed by law.

limitation of the quantity of *other forms of currency*, and to allow the *normal* growth of trade and population to leave a gap in the circulation which could be filled by gold. He felt that if the rupee remained unlimited legal tender, a reduction in the number in circulation would not be necessary on any grounds, no heavy pressure on the world's money-markets would then be felt, and no danger to the progress of the reform would arise from the possible ill-effects of the sale of *very* large amounts of silver. He therefore proposed:—

(1) That the mints be immediately opened to the coinage of full-weight gold coins, in unlimited quantities. The minimum denomination should be Rs. 20 until the inauguration of the full gold standard, which should not be delayed for a period of more than five years from the date that the mints were thrown open to the coinage of gold. The size of the smallest gold coin could then be reduced to Rs. 10, if it was considered desirable. The coins should be unlimited legal tender and a seignorage charge to cover cost of coinage should be imposed.

(2) That no further coinage of rupees or increase in the note-issue beyond the existing limits be permitted in the interim period, and that so long as complete convertibility had not been introduced, silver or notes should only be given for gold within the *limits of the actual existing circulation*.¹

(3) That of the 90 crores of rupees in the Paper Currency Reserve, only such portion should be sold as was required to take the place of notes under Rs. 10, the retirement of which was recommended, and a

¹ Similar suggestions were made by Professors Wadia and Joshi, see *Report*, Appendix 20.

further amount which might be required to encash such 10-rupee or other notes as might be presented for redemption before the expiration of the first five years of the scheme. On the inauguration of the convertibility of notes into gold, whilst some silver would probably still have to be held, the silver portion of the Paper Currency Reserve should be reduced still further.¹

Proceeding on the same line of argument, Professor Cannan suggested the following as the steps by which a transition to a gold currency standard could be made in India without any large risk at any point and at the same time with considerable rapidity.

(1) At once open the Mint to the free coinage of gold; the mint to be bound to give (after a reasonable interval for time in manufacturing the coin) as much gold in coin as it received in bullion less a small charge for cost of manufacture.

(2) At the same time declare the new coins and equivalent old ones, if any, to be legal tender (unlimited) as rupees at the ratio fixed (for example, if 1s. 6d. exchange were the basis, sovereigns would be legal tender for $13\frac{1}{3}$ rupees and a new 20-rupee coin would contain as much gold as a sovereign and a half).

(3) At the same time suspend all additional issues of silver coin, and stop all additional issues of notes redeemable in silver.

(4) Then make the notes convertible into gold coin at the option of the holder, but proceed by instalments, taking first the notes of largest denomination, and proceeding downwards, class by class, very rapidly if no demand appears at each stage, till the notes are convertible into gold.

¹ Ibid., Appendix LXXX, para. 8.

(5) Then apply the same method to the silver rupees, taking them by instalments, beginning with those of the most recent date.¹

It was claimed that this method would accomplish all that was required, and that very quickly, since India would be on a gold currency standard from the moment when 1000-rupee notes gave their holders power to draw meltable and exportable gold. It was recognized that some time after the process described above was complete, increase of population *might require the suspension of additional coinage to be terminated*,² but it was suggested that in order to prevent any temptation to make a profit by over-issue, any profits obtained by additional issue should be realized in gold, and held in reserve to meet the possibility of a backward fluctuation necessitating a redemption of silver coin.

The avowed object of both these plans was to starve the Indian currency in order to make room for gold coins. Obviously this is impossible when the currency is redundant owing to depression in trade or *falling* world prices. In the absence of any automatic process of contracting currency, it would then be impossible to maintain parity between the currency and gold. As both the rupee and mohur will be unlimited legal tender, Gresham's law would operate in times of redundancy of currency and prevent gold from circulating at all.³ Dr. Gregory, while 'professing no special

¹ Ibid., para. 6.

² Dr. Ambedkar did not contemplate resumption of rupee coinage even when the quantity of gold in circulation was ten times that of the rupee, (see *Report*, Minutes of Evidence, Q. 6117).

³ Ibid., Appendix 80 and Minutes of Evidence. Q. 12622.

knowledge of the economics of the gold-mining industry', had a 'feeling that the wider the area in which gold serves as standard and as the principal coin, the less was the danger of a further fall in the value of the metal', and was inclined to believe that the rate of decline in the output of gold would be slower than was anticipated by Mr. Kitchin,¹ and that any falling off in gold output would not necessarily have any direct effect on price-levels, as in that event the banks would only reduce their reserve ratios a little. Dr. Cannan anticipated a serious *rise* in gold prices if the east did not take more gold than before, and was of opinion that it seemed 'more likely that the gold standard countries would be benefited than they would be inconvenienced by the introduction of a gold currency into India'.² In the assumptions made by these witnesses there was no danger of a fall in prices; but as has already been noted, the evidence of mining experts and of economists of the standing of Professor Cassel, Dr. Sprague and Dr. Hollander was just the opposite of this. During the course of cross-examination, Dr. Gregory himself was forced to admit the possibility of a fall in prices, as the following extract from his evidence will show.

Q. 12778. (Sir Henry Strakosch) With regard to the sufficiency of the gold supply, there are some authorities who strongly hold that the gold supply of the future will not

¹ Ibid., Appendix LXXX, paras. 1, 3.

² Dr. Ambedkar expected that the future supply of gold in relation to the demand will remain large because the countries of the world were using so much paper that whatever gold supply we had was really large enough for a long period for the transactions of the world even without new additions from the mines.—*Report, Minutes of Evidence*, Qq. 6076-87.

be sufficient to keep pace with the economic development of the world. I have seen figures from an eminent authority to show that during the next ten years it is probable that the gold supply for monetary purposes will be short by a matter of fifty-five per cent of the actual needs to keep pace with the economic development of the world. Your remedy would be for the central banks to reduce their reserve ratios. That is very largely a psychological factor, is it not?—*Yes.*

Q. 12770. It depends upon public sentiment permitting such a thing. You agree to that?—*Yes, I would agree.*

Q. 12780. If by any chance *public sentiment* were not to permit it, what would be the consequences?—Assuming that it would be impossible for the central banks as a whole to reduce their reserves in consequence of assumed psychological objections, then if additional demands for gold were made in other countries, *either the price-level would fall or the industrial consumption of gold would fall.*

Q. 12782. If the past records show that industrial consumption has been a pretty steady one over a course of years, does it not suggest that if there was a deficiency in the gold supply it would fall mainly upon the monetary gold?—Well on the assumption that the industrial demand for it is inelastic, that it does not vary with the value of gold, *then certainly it would fall on the price-level.*

The actual course of prices in spite of efforts to economize the use of gold has amply confirmed the fears of Professor Cassel. In March 1926, when Dr. Gregory was examined by the Commission, the index number of prices in the United States stood at 152; it fell to 145·3 in March 1927, to 137·5 in March 1928 and to 13·85 in February 1929. Dr. Gregory and Professor Cannan assumed a normal *increase* in the demand for currency in India; actually the amount of rupees and notes in the hands of the public *decreased* by as much as 23·16 crores in 1926-7.¹

¹ See *Report of the Controller of Currency* (1926-7), para. 39.

Even if the demands for currency increased owing to increasing trade or rising world prices, the working of the suggested plans would present serious difficulties. During the course of his cross-examination, Dr. Gregory admitted that any increase in the additional demand for gold arising anywhere would lead to a high bank rate, and that one arising in the city of London would have indirect adverse consequences in India through damping down the demand in Great Britain for Indian products, and that if a rise in the London bank rate were followed by consequential rises elsewhere, the cumulative effect all over the world would be for a short period of time quite serious.¹ He also agreed that the starvation of currency, which was the basis of his scheme, would lead to a fall in the volume of new deposits in the banks and a rise in the general rate of discount.² Under his proposals, further accretions to currency during the transition period were to be in the form of gold coins only or gold certificates, with the result that if the country needed *additional* small currency in sufficiently small units, the only way to supply it would be to starve the circulation to such an extent as to produce a fall in the Indian price-level great enough to attract the hoards back into circulation.³ He did not deny that his scheme thus involved the possibility of prices falling in India enough either to bring the currency out of hoards or to attract gold; in fact he admitted that this was the *very essence* of his scheme.⁴ Further, even

¹ *Hilton Young Commission Report*, Minutes of Evidence, Qq. 12686-90.

² *Ibid.*, Q. 12907.

³ *Ibid.*, Qq. 12764-70.

⁴ *Ibid.*, Q. 12853.

with the existing provision for seasonal expansion of currency, the proposed scheme did not provide sufficient elasticity for expansion. He agreed with this criticism and could only justify it on the ground that *those who wanted a gold standard, must pay for it*. The following extract from his evidence will fully bear this out:—

Q. 12698. There is a normal increase in the requirements of India of round about twenty crores of rupees per annum. Is it your view under your proposals that during the transition stage further accretions should only be in the form of gold coin or gold certificates?—Gold certificates or gold coin.

Q. 12699. How does your proposal in that regard apply to the question of providing seasonal currency for seasonal demands?—I had not thought of the point; and I should suggest that might continue as it is now.

Q. 12700. Even with that provision, your suggestion might possibly be criticized from the point of view of not providing sufficient elasticity for expansion?—I quite agree. I am quite prepared to meet a criticism of that kind on the lines of the argument that *if you want a gold standard, you must pay for it. You cannot introduce a gold standard, and at the same time indefinitely increase the supply of fiduciary currency*. The more you do that, the longer you delay the introduction of the standard.

Q. 12701. Under your proposals the people who would have to pay for it would really be the commercial, industrial and provincial community of India, who would be provided with a currency system which kept them for an indefinite number of years in a condition which has been described as that of being in iron bonds—the iron bonds of an inelastic currency?—I should say that the tendency would be, if one restricted the supply of silver rupees or silver rupee notes and there was a series of very good monsoons, that the Indian exchange would be constantly at gold import point and gold would be presented either to the Paper Currency Department or the Imperial Bank. That would be a reason in my opinion why the gold standard should be introduced earlier than anticipated in the proposed scheme. I only want to maintain the restriction, until, in fact,

the convertibility of other forms of currency into gold is assured. After that point it is a question more or less of the automatic working of the scheme.

Q. 12702. But the more and better the monsoons, the greater the potential expansion of Indian commerce, and the greater the expansion of credit and currency, the greater under those conditions the hardship will be, if it be a hardship, of a currency system which is inelastic in its character?—Yes. I think I am *rather afraid of elasticity* at a time when you are proposing to change over from one standard to another.

Q. 12703. You not only frankly admit, but *you freely acclaim that the two are incompatible?*—Yes.

Professor Cannan's scheme involved further difficulties in practical administration. In order not to leave a back door open for silver or small notes to be converted into gold before they were ready for that stage, Government would have to refuse to give big notes for silver coin and for small rupee notes.¹ Differentiation between the various classes of notes and rupees of various dates as regards their convertibility into gold was bound to result in a premium on some and a discount on others and give a shock to the status of the rupee among the ordinary laymen.²

Apart from these difficulties during the period of transition, both these schemes were based on the assumption that after the establishment there would be enough gold to meet any possible demand for the conversion of rupee hoards into gold and for the substitution of whatever notes and rupees could be spared from circulation in critical times,³ and that the ninety crores of silver rupees in the reserves would be sold in

¹ *Report, Minutes of Evidence, Qq. 13258-65.*

² *Ibid., Qq. 13266-70, 13312-3.*

³ *Ibid., Qq. 13273-6.*

the world bullion market¹ and be replaced by gold. According to Professor Cannan himself, this 'involved not only additional expense in the loss of interest on interest-earning gold securities, and the charges in respect of fresh credits'² necessary for carrying out with equanimity the final stages of his system, but also a loss of thirty-three millions on account of the sale of silver.³

The question may then be fairly asked whether the net gain is worth this heavy price even if the schemes prove feasible owing to a *rise in world prices*. Will a mere fringe of gold to our currency, such as these schemes contemplate, do any *real good* to India? Will it give anything more than a limping bimetallism or an 'exchange standard with the mints open to the coinage of gold'⁴ so long as the currency is not freely convertible into gold coins?⁵ Will gold in circulation inspire confidence in the currency system or weaken the hoarding habit in any way when our media of exchange are not freely convertible into gold? Will it be of any use at times of weak exchange when gold or gold credits must be found as soon as the demand offers itself and to any extent which the demand represents?⁶ Is

¹ *Report*, Minutes of Evidence, Q. 13289.

² *Ibid.*, Qq. 13278-82.

³ *Ibid.*, Qq. 13289.

⁴ *Ibid.*, Q. 12734.

⁵ Compare Dr. Gregory: 'The type of system I recommend is really a variant of what used to be called the "limping standard".—*Ibid.*, Minutes of Evidence, Q. 12641.

⁶ Compare Sir James Brunyate: 'I do not see any real probability that with 200 crores of notes and 150 crores of rupees in circulation, and perhaps 150 to 200 crores of bank deposits, a redundancy of purchasing power will express itself to any helpful extent in the return of the relatively marginal supply of

it not idle to expect the banks to keep their reserves in gold bullion or coin when silver will continue to be the ordinary currency of the country as well as unlimited legal tender? Will not the Government continue as under the existing system to take upon themselves the entire burden of keeping adequate gold reserves for foreign drain? Will not the currency system be less elastic than at present if gold in circulation replaces notes to any extent? ¹ Will it not weaken instead of strengthen the gold reserves, since gold will get into circulation only at the expense of gold either in the Gold Standard Reserve or in the Paper Currency Reserve? Will it be anything more than a temporary solution if the silver rupee continues to be the most suitable and acceptable medium of exchange? And finally, if the real objective is to introduce an *effective* gold currency standard as soon as possible, does any of these schemes make for 'the strengthening of gold reserves at the maximum rate and to the maximum extent possible under present conditions without upsetting prices, incurring excessive expenses, or injuring Indian trade by unduly restricting credit'?

circulating gold'.—*Report*, Appendix LXXVI, para. 6. Compare Dr. Gregory's cross-examination (Q. 12756): 'The point of my question is this. What reliance do you place on the gold in circulation as a fortification for the reserves in times of a bad monsoon and weak exchange?—Upon that I would not like to speak. I really do not know.'

¹ Compare Sir Charles Addis: 'Where the circulation of gold has been previously tried, it always seems to have been at the expense of the notes.'—*Ibid.*, Minutes of Evidence, Q. 13687.

CHAPTER VI

THE GOLD BULLION STANDARD

1. If a gold currency is both expensive and inexpedient, as pointed out in the preceding chapter, India must content herself with an effective gold standard without a gold coin in active circulation. The main object to be aimed at should be to ensure the automatic expansion and contraction of the currency. For this it is enough to have a 'convertible rupee', convertible not into gold coins, but into gold bullion only.¹ Convertibility is the best safety-valve for redundancy of currency ; it provides the easiest automatic danger signal to Government when they are inflating the currency. A system of convertibility will not need for its success a large quantity of gold if the British sovereign ceases to be legal tender.² For, if the rupees in circulation are diminished and not replaced by gold coins, the value of the rupee will rise quickly to the point where it will cease to be profitable to exchange rupees for gold. The rupee will still remain king in India ; the natural demand for it will not decrease in any way. It is no doubt possible that in times of war or severe famine convertibility may involve Government in serious risks, but, if the Bank of France had some times to suspend cash payments or the British

¹ Compare Sir Basil Blackett's admission after the publication of *Indian Currency and Exchange* (1925) that 'it is an improvement from a theoretical point of view' (*Hilton Young Commission Report*, Minutes of Evidence, Q. 10180).

² Estimated by officials at about twenty-five to thirty crores within a period of ten years (see *ibid.*, Q. 14203).

Government to suspend the Bank Charter Act, there is no harm if a similar course is left open to the Indian Government in exceptionally grave emergencies. Such exceptional cases, as was pointed out by Mr. Farrer in his evidence before the Fowler Committee, are not made the basis of currency systems. 'We look to the ordinary state of things.' Looking at the problem from this point of view, India's case seems to be a specially favourable one, 'she has a great and elastic power of producing saleable exports; she imports on the balance, a large quantity of the precious metals, which she retains with great tenacity; and she recovers very quickly from great depressions.'¹ It is again true that the largest possible reserve of gold would prove insufficient if all the rupees in India, or for that matter even all the rupees except those absolutely required for purposes of circulation, were presented at one moment for encashment into gold. But such a contingency is just as likely as a general run on all the banks and currency offices. The only security against such a panic is that no such demand for conversion is ever likely to be made.² The masses, the majority of whom are poor, will find the rupee useful as such; it is the thoughtful and the speculative people who will demand gold for rupees. The only way to establish the confidence of the latter is to meet their demand boldly.

2. Any scheme of 'a convertible rupee' implies the location of the gold reserves in India. It has already been noticed that the Babington Smith Committee

¹ See Leonard Darwin's evidence before the Fowler Committee.

² See Mr. Farrer's evidence before the Fowler Committee.

recommended that both silver and gold in the Paper Currency Reserve should be kept in India. What remains to be done is to transfer to India the greater part of the Gold Standard Reserve also, and hold it for the most part in actual gold. This does not imply that India should have no credits abroad. For, so long as India has to pay home charges, and her balance of trade is at the mercy of rains, it would be wise to keep a certain amount of her resources abroad to mitigate the hardships of an occasional adverse exchange. But considerations of this kind do not justify the wasteful practice of keeping abroad a large gold reserve that is very rarely drawn upon. At any rate it is unthinkable that it can be allowed to continue under a system of 'convertible rupees', for all the gold that can be accumulated will be needed as a reserve for the encashment of rupees in India.

Even apart from any such scheme of convertibility, adequate reasons exist for the transfer of the gold reserve to India. In the first place, Great Britain's gold reserves have been sometimes notoriously slender, almost to the verge of danger, and it is gratuitous tempting of Providence (to use the language of Sir Montagu Webb) to place India's gold reserves almost entirely in London in such circumstances. In the second place, 'owing to economic or political complications, there are two sets of complications conceivable in England that would make it an impossibility for India to withdraw her gold reserve from London, no matter how badly India might require it, and those are (1) a panic in England arising out of an economic crisis; and (2) a financial crisis arising out of Great Britain's being involved in war with a first-

class Power.' ¹ Thirdly, even from the narrow point of view of exchange stability, the automatic working of natural forces is impeded rather than helped by the present practice. Between countries using the same currency for their foreign trade, these natural forces depend for their working on the export of currency from one country to another, tending to raise the rate of interest in the exporting country, and to lower it in the importing country, and thus to turn the current back in the other direction. ² In the existing circumstances the London money-market is apt to treat India's gold reserves as a part of the general gold reserves in London and to depend upon them for support in emergencies. The result is that even the sale of Reverse Councils, which is India's substitute for exporting gold, does not ease the English money-market as readily as actual export of gold from India would.

3. A wise government would resort to various other supplementary measures by way of reform. It would in the first place decrease its gold obligations abroad, as these are a constant source of embarrassment. The Herschell Committee recommended this course as a measure supplementary to the closing of the mints; and the Fowler Committee considered it eminently desirable that 'the Government of India should husband the resources at their command, exercise a resolute economy, and restrict the growth of their gold obligations' for the speedy attainment of an effective gold standard. And yet this authoritative advice has been so far treated with supreme indifference.

¹ See Sir Montagu Webb's memorandum before the Chamberlain Commission.

² See Mr. Darcy Lindsay's cross-examination by the Fowler Committee (*Report*, Minutes of Evidence, Qq. 3829-34).

Secondly, Government would do well to make an effort to accumulate a large stock of gold by adopting some of the methods formerly employed by the Russian Government when they set themselves resolutely to the task of establishing in Russia a gold standard without a gold currency in circulation. They kept Russian gold production inside the country, raised the Russian rate of discount to a level higher than the one prevailing in the neighbouring countries, made the import duties payable in gold or gold equivalent, and took full advantage of the occasions when Russia had a favourable balance of trade by becoming large buyers of its export bills and ordering gold to be sent to them from the proceeds of such bills.¹

Thirdly, Government ought to simplify matters by amalgamating the Paper Currency Reserve and the Gold Standard Reserve, as was suggested by Mr. F. C. Harrison to the Chamberlain Commission. It is worth while noting the evidence of this witness on this point.

Q. 10277. (Chairman) Let us revert to the Indian case. I had asked you to give us your views as regards the two reserves generally?—Yes. For a long time I have been wanting to suggest to the Government of India—but having left India now one's interest has waned a little—that it would be worth considering the question of amalgamating our currency note system and our ordinary currency system. At present our rupee is really a note printed in silver and our note is a note printed in paper. We are undertaking the liability to preserve the whole on a parity with gold at 1s. 4d. By way of taking a figure as an illustration supposing we will say there are 180 crores of silver in circulation and 60 crores of notes in circulation. I should be rather inclined to look at the

¹ See Mr. Rothschild's evidence before the Fowler Committee (*Report, Minutes of Evidence, Q. 7613*).

question : how much gold should we hold against the two together, against the 180 crores in silver notes and 60 crores in paper notes ; and do away with the Gold Standard Reserve. To take a figure by way of illustration, say that we hold 25 crores of gold against the 180 crores of silver, and say we hold 15 crores of gold against the 60 crores of notes, that would be 40 crores. Then what I would suggest is some plan of this kind : for every rupee we issue we keep the same proportion of gold, 25 to 180, or whatever is fixed, and similarly for whatever notes we issue we keep the same proportion of gold, that is 15 to 60. That is the sort of system I would prefer, I think, to see introduced by the Government of India.

Q. 10280. Am I to understand that your view of the Gold Standard Reserve is that it should be regulated on the same principle on which you regulate, say, the stock of gold which you hold for encashment on bank notes here?—Yes, I would let it stand simply on its own feet—that India has enough gold to back its silver and notes

Q. 10283. (Mr. Keynes) Are you advocating that gold should be kept for the redemption of rupees when the gold is not wanted for export at all, and there is no unfavourable balance of trade?—Yes, I was saying that I should treat the rupee as exactly in the same position as the currency note. It is a note which is printed in silver.

Q. 10284. Is not that a purely wasteful practice, and of no use to anybody?—No, I think not, because there is the danger in having 180 crores of rupees current at a value in excess of their intrinsic value.

Q. 10285. Apart from the question of an adverse balance of trade and exchanges, is there?—Yes.

Q. 10287. You do not think that gold is only wanted for the purposes of export?—No, assuming you have certain counters which produce a certain price between the counters and the commodities, if there is a change in prices due to change in methods of business or a rise in the value of gold, you will require less of those counters. If those counters are bone you cannot reduce them. I mean if the counters are of no intrinsic value you cannot reduce them ; they have a tendency to stick. You cannot reduce token currency, in other words, in the

way that you can reduce a full value currency, which goes away until a near equilibrium is established.

Q. 10288. If you redeem rupees for sovereigns and the sovereigns are kept in the country and not exported, the volume of currency is exactly the same as it was previously?—Yes.

Q. 10289. Therefore there is no effect on prices?—But they may present more counters than you have gold behind. My point is that a full value currency seeks its own level, but a token currency cannot be contracted.

Lastly, Government should bring the Indian system into line with other systems by establishing a real central bank in India. Apart from the reasons noticed elsewhere,¹ a currency system of the kind recommended in this section can be worked by a central bank, having control over both credit and currency, far more efficiently than by a Government department; for, as Sir Basil Blackett pointed out in his evidence before the Hilton Young Commission, 'the more automatic the currency system becomes, the more importance attaches to the discount policy and that is essentially a function of the bank.'²

4. It must not be imagined that the scheme outlined above will give us as stable a monetary standard as Dr. Fisher's plan. All that is claimed for it is that under it the unit of value will be much more stable than under the pre-War currency system, once the world prices reach something like a normal level; that it will give the country the much-needed relief from the intolerable burden of higher prices than those prevailing in other gold standard countries; and that it will be much more economical than 'a gold standard with a gold currency in internal circulation.' Like all other

¹ *Indian Currency, Banking and Exchange*, ch. x.

² *Report, Minutes of Evidence*, Q. 181.

forms of gold standard, it will make for a fall of prices ; but that fall will be much *less* than will follow the establishment of a gold standard with a gold currency in active circulation.

5. The Hilton Young Commission accepted the main features of the scheme outlined above—the convertibility of rupees and notes into gold bullion, the demonetization of the British sovereign, the amalgamation of the Paper Currency Reserve and the Gold Standard Reserve, the location of the greater portion of this combined reserve in India, the accumulation of a large gold holding, and the creation of a central bank to assume control of both currency and credit.¹ The essence of their proposal to establish in India a gold bullion standard was that the currency note and the silver rupee should continue to remain as the ordinary media of exchange, and that the stability of the currency in terms of gold should be secured by making the currency directly convertible into gold for *all* purposes, but that gold should not circulate as money. It *must* not circulate at first and *need* not circulate at all.² They proposed that an obligation should be imposed by statute on the currency authority to buy and sell gold without limit at rates determined with reference to a fixed gold parity of the rupee but in quantities of not less than 400 fine ounces, no limitation being imposed for the purpose for which it is required.³ Since gold bars would be given in exchange for notes or silver rupees, not for export only, but for any purpose, this

¹ All these suggestions were made in *Indian Currency and Exchange* (1925) and repeated in my evidence before the Hilton Young Commission.

² *Hilton Young Commission Report*, para. 54.

³ *Ibid.*, para. 59.

would not be an exchange standard but an absolute gold standard.¹ The rupee would be linked to gold and not to sterling or to any other currency or group of currencies.² The compensatory mechanism of the exchanges would be preserved, for when gold bars were given by the currency authority for notes or rupees, the currency would be contracted, while, on the other hand, when gold bars were given to the currency authority, the currency would be expanded.³ With a view to prevent the gold from the reserves passing into circulation without effecting any contraction in the currency, the Commission recommended that the legal tender quality of the sovereign and the half-sovereign should be removed.⁴ The conditions governing the sale of gold by the currency authority would take account of the costs of importation and of any deviation in the value of currency from its gold parity, otherwise the currency authority would be the cheapest market for gold in all ordinary circumstances and so would practically destroy the wholesale bullion market. Thus, when exchange was at the upper gold point, the point at which the currency authority would be naturally importing gold for monetary purposes, the selling price for delivery at Bombay would be the par value, that is Rs. 21-3-10 per tola. When exchange was below this point, the bank would be required to sell gold for delivery in London or Bombay at the option of the purchaser at certain notified prices which would be determined by the cost at which gold could be respectively purchased in London or laid down in

¹ *Hilton Young Commission Report*, para. 60.

² *Ibid.*, para. 59.

³ *Ibid.*, para. 60.

⁴ *Ibid.*, para. 66.

Bombay from London when exchange was at the lower gold point.¹ In other words, though the currency authority would be bound to buy gold tendered to it at any time by giving one rupee for every 8·4751 grains offered, it would not be compelled to sell gold for non-currency purposes at a rate which threw upon the taxpayer any portion of the expenses of import.

Apart from this opportunity to bankers and bullion brokers for converting rupees and notes into gold bullion, the Commission recommended that, in order to bring it home to the masses that gold was the standard of value of the rupee, Government should offer 'on tap' savings certificates, redeemable in three or five years, in legal tender money or *gold* at the option of the holder at a price which would give him an attractive yield in interest.

The Commission's recommendations regarding the note-issue and the reserves have been already dealt with elsewhere.² The proportions and composition of the combined Gold Standard and Paper Currency Reserves were to be fixed by statute—a provision essential to any sound currency system in order to secure the automatic expansion and contraction of the currency and the compensatory effect of the exchanges, in accordance with the needs of the country. Gold and gold securities were to form not less than forty per cent of the combined reserve, subject to a possible temporary reduction, with the consent of Government, on payment of a tax. The silver securities in the reserve were, on the other hand, to be substantially reduced during a transitional period of ten years. The gold holding was to be raised to twenty

¹ *Hilton Young Commission Report*, para. 64.

² *Indian Currency, Banking and Exchange*, ch. iii.

per cent of the reserve as soon as possible and to twenty-five per cent within ten years, and during this period no favourable opportunity of fortifying the gold holding in the reserve was to be allowed to escape. Of this gold holding, at least one-half was to be held in India.¹

As to the nature of the controlling authority, the Commission suggested the unification of the control of Indian currency and credit policy under one authority which should be independent of Government, and recommended the setting up of a reserve bank with functions similar to those that are entrusted to central banks in other countries.

6. The Commission's recommendations thus embraced the whole field of Indian currency, and involved far-reaching changes in the general structure of the monetary system. The real significance of the gold bullion standard recommended by the Commission was brought out clearly in the following passage taken from Sir Basil Blackett's address to the Delhi University: 'The essential change from past practice is that the rupee will cease to be the standard form of currency on which all other forms of legal tender depend for their convertibility. In place of this arrangement the silver rupee, along with all other legal tender media of circulation will be convertible into specified amounts of gold bullion. This change is perhaps a little obscured by the fact that the unit of account under the Commission's scheme remains the rupee which both etymologically and historically connotes a silver rather than a gold standard. The real significance of the change can be brought out more clearly if we imagine the substitution of a new

¹ *Hilton Young Commission Report*, paras. 78-80, 131-6, 145.

gold unit of account with a significant name in place of the rupee. Let us suppose, for example, that while retaining the unlimited legal tender privileges of the rupee and having no gold coin in circulation, we were to introduce a gold mohur of 8.4751 by 20 , that is 169.5 , grains of gold as the standard of value and the unit of account. It would not be necessary to coin an actual gold mohur or put it into circulation. The mohur would simply be there as a unit of account twenty times the present value of a rupee. It is a curious but, I think, a true observation that the use of full-value metallic coins is an anachronistic survival in present day western civilization. There is no more necessity for the multiplication of physical sovereigns or gold dollars in order to enable the sovereign and the gold dollar to perform their functions as standards of value and units of account than there is for a multiplication of physical yards or tons or metres to serve mankind as standards and measures. Coinage and the circulation of coined money were epoch-making inventions of an earlier civilization; but the essential purpose served by coins in olden times can be well or even better served to-day by a common unit of account and of value in terms of which all accounts are kept, all commercial exchanges carried on, and all media of circulation which we require conveniently expressed. So in India we might imagine ourselves adopting as our unit of account and of value a mohur of 169.5 grains of gold. Our rupee would be just as the English shilling is in relation to the pound sterling (though unlike the English shilling the rupee has unlimited legal tender right), one-twentieth of a mohur; our five-rupee notes could be expressed alternately as five rupees or one-quarter of a mohur, and

so on. To adopt this change now would at this stage tend merely to confuse, I fear. The Commission were rightly anxious to effect the transition which they advocated quietly and gradually and without violence. They were in a sense dethroning the rupee in so far as it had not already been dethroned in and since 1893, but they were anxious not to overemphasize the change or to bring discredit on the rupee and thereby add to the considerable difficulties already being caused by the large return of surplus rupees into the currency reserve. My object in framing this imaginary picture is simply to bring out the inwardness of the change from a rupee to a gold standard.'

In the light of this explanation, it is easy to realize how very misleading it is to talk of the 1s. 4d. ratio or 1s. 6d. rate in connexion with the question of maintaining a fixed parity between gold and the rupee. Although the Commission took special care to point out that when such expressions as 'the 1s. 6d. rate' or 'a 1s. 6d. rupee' are used, they must be read with reference to their recommendation that the rupee should definitely be linked to gold, and that the expressions in question are used merely as a convenient and familiar way of referring to the gold value of the rupee,¹ these inexact expressions are likely to lead the unwary reader to fall into the error of believing that it was all a question of fixing exchange in terms of *sterling* or the British standard of value. *As a matter of fact, they mean nothing more than that the gold parity of the rupee was being fixed at 8.4751 grains of gold.* Unlike the monetary standard in pre-War days, the new gold bullion standard would not be a *dependent* standard. Under it, rupees

¹ *Hilton Young Commission Report*, para. 175.

and notes would be linked, not to any *foreign currency*, but directly to *gold*. It avoided the mistake committed by the authors of the pre-War currency system of linking the maintenance of the standard of value 'with the incidental and varying circumstances of exchange' and of placing it at the mercy of currency and credit changes in England. The real standard of value in India would be neither the silver rupee nor the sterling, but gold and gold alone.

The changes recommended by the Commission were to relieve India from the embarrassment of providing a large reserve in silver. The notes hitherto had been convertible only into silver rupees which were of no use for payments abroad; the new notes of the reserve bank would be convertible into gold—a universally acceptable commodity. To ensure convertibility, the currency authority had up to then to keep a large part of the reserves in silver coin or bullion; to achieve the same object the reserve bank would have to accumulate substantial reserves in gold. So long as notes were convertible only into rupees, the rupee was the real standard of value; when both rupees and notes would be freely convertible into gold, gold would be the standard of value. So long as notes were convertible only into silver coins, it was difficult, if not impossible, to accumulate sufficient gold to embark safely on a gold currency standard; when, on the other hand, the gold bullion standard under which notes would be backed by gold was in working order, it would be comparatively an easy matter to introduce a gold currency if the demand for it persisted. One of the chief obstacles in the way of introducing a gold currency was the large amount of silver in the reserves; that had been a legacy of the pre-War exchange system. The

new gold bullion standard would leave no such embarrassing legacy behind.

Another important consequence of the Commission's recommendations was the removal, once and for all, of the danger of a relapse into a silver standard, just as happened during the War. So far, the value of the rupee had been independent of its silver contents only so long as the price of silver was below a certain level. When it rose above this level, the value of the rupee followed the price of its silver contents and the country drifted on to a silver standard. But under the Commission's scheme the coinage of silver rupees was to be stopped for a long time to come, until the amount of silver rupees in circulation was reduced to the amount required for small change,¹ and no legal obligation for conversion into silver rupees was to attach to the new notes of the reserve bank,² though it would be under a statutory obligation to convert on demand all notes, other than the one-rupee note, into legal tender money, that is into notes of smaller denomination or silver rupees *at its option*.³ Thus when the rupee ceased to be one of the bases of convertibility of the note, and when the public had been made familiar with the use of the one-rupee note which should not be convertible by law into silver rupees, no difficulties would arise in meeting the situation, should the rupee, owing to a rise in the price of silver above the 'melting point', disappear from circulation.⁴ The value of the unit of account would thus become absolutely independent of

¹ *Hilton Young Commission Report*, para. 69.

² *Loc. cit.*

³ *Ibid.*, para. 73.

⁴ *Ibid.*, para. 71.

the price of silver and rest solely and securely on its fixed gold parity.

The new gold bullion standard would differ from the pre-War exchange standard in another important respect. The pre-War system of the currency impeded the automatic working of the natural correctives to favourable and unfavourable exchanges; but the gold bullion standard would be more effective in this respect than even a gold currency standard. When the United States had a favourable balance of account and gold flowed from London to New York in adjustment of this balance, gold prices tended to *rise* in the United States and *fall* in England. This stimulated exports from England to the United States and tended in its turn to bring about a rate of exchange favourable to London. But under the pre-War system, when India had a favourable trade balance, the sale of Council Drafts tended to raise prices in India but did not produce a fall of prices in England, as gold did not leave England. Similarly, even when currency was contracted by the sale of Reverse Councils at times of weakening of the exchange, no *additional* gold flowed into the United Kingdom, with the result that prices in England did not tend to *rise*. As pointed out by Sir James Brunyate, 'a correctly operating system for remedying exchange should not only be *deflationary* in its *local* effect but also *inflationary* in its *external* effect.'¹ This essential requirement was not met by the issue of sterling or gold credits under the exchange standard, but would be met by the export of gold both under the gold bullion standard and the gold currency standard. Of the two, the former

¹ *Hilton Young Commission Report*, Appendix 76.

was more effective than the latter in contracting and expanding currency, since under it, the currency would be convertible *directly into* gold bullion while under the latter it would be converted first into gold coin and then melted and exported. Since gold bars were not currency, conversion of rupees or notes into gold bars would bring about an immediate contraction of currency, while on the other hand currency would immediately expand when gold bars were given to the currency authority for notes or rupees.¹

If, therefore, the essential elements of a full gold standard were a fixed gold parity of the standard of value, a complete convertibility of the media of exchange into gold, an absolutely free gold market and an unfettered foreign exchange-market, a complete independence of changes in the price of silver, and an automatic and effective working of the compensatory mechanism of the exchanges, then the gold bullion standard satisfied all the tests and had every claim to be considered as an absolute gold standard.²

The Commission's recommendation regarding the unification of control over currency and credit in the hands of a single authority, a true central bank, constituted another valuable contribution to the solution of the monetary troubles. With an elastic note-issue, and the centralization of the banking and currency reserves and Government balances, and their management by a central bank which would be in a position at all times

¹ *Hilton Young Commission Report*, para. 60.

² Of course this cannot satisfy men who still move in an old world and who can say, as Professor K. T. Shah said to the Commission, 'what exactly do we mean by a gold standard which is without a gold currency? I am frankly unable to conceive it.'—*Ibid.*, Minutes of Evidence, Q. 8870.

to rediscount to an unlimited extent all eligible paper of other banks and to dictate to the market to follow the policy of prudent finance, the elements of danger and weakness in the pre-War credit organization would tend to be eliminated. And, as one of the members of the Commission pertinently pointed out, many of the long standing controversies, criticisms and allegations would retain only a historical interest once the system contemplated by the Commission was established; for instance, no one could then even suggest that 'immense sums are being transferred from India to London needlessly' and that the Indian money-market was deprived of the use of the funds to which it was legitimately entitled, or that Government were manipulating currency for their own ends.¹

It is necessary to realize in this connexion the intimate bearing of banking developement in general and the establishment of a central bank in particular on the working of a gold standard in India.² It is essential for the satisfactory functioning of the mechanism of a world gold standard that gold movements between countries on a gold standard should be restricted to narrow limits, and that there should be quickly set in motion influences tending to correct them, partly through a rise in prices and easy money in a country receiving gold, and partly through the reverse influences operating in the country

¹ See Coyaji, *India's Currency, Exchange and Banking Problems*, p. 38.

² See *Hilton Young Commission Report*, Minutes of Evidence, Qq. 10869, 11286, 11405, 15311-5 and 15395. For the lesson to be drawn from American experience as to the importance of banking in currency reform see Q. 15415.

exporting gold.¹ It is necessary, therefore, for a gold standard country to have a banking system that not only absorbs effectively its gold imports but also regulates properly its credit and prices as a consequence of its gold exports. Obviously these conditions did not exist in India. Without an extension of banking and the establishment of a central bank in India, the establishment of any effective gold standard would, therefore, create serious difficulties, not only for other gold standard countries, but also for India. Under a gold standard, if there were an abnormal export surplus and gold flowed into hoards instead of into banking reserves in India, there would be no appreciable rise in Indian prices and easiness in the Indian money-market, while in the country exporting gold, influences would be set at work tending to high money rates and depressed prices which would not only embarrass those countries but also prove disadvantageous to the economic well-being of the Indian people by putting a severe strain on India's customers just at the time when they would be purchasing her crops.² Under opposite conditions, when it would be India's turn to export gold, gold would not come out of the hoards unless the depletion of the banking reserves put a considerable and severe strain on the money-market and the business world for a prolonged period of time.³ As an essential counterpart of a gold standard there must be, for these reasons, a banking system which was well-diffused throughout the country, which could facilitate the spreading over a considerable period of time the demands for gold

¹ See *Hilton Young Commission Report*, Minutes of Evidence, Q. 15351.

² *Ibid.*, Q. 15311.

³ *Ibid.*, Q. 15351.

which might be caused by a large increase in the exportable surplus in any particular year, which could, through the central bank, influence the credit and currency situation in India by changes in discount rates, and which would reduce gold movements to a minimum and thus discharge the international responsibilities implicit in the acceptance of the gold standard.¹

7. The review of the gold bullion standard may be completed by noticing briefly a few misconceptions on the subject. It has been argued that 'the obligation to sell gold will be ineffective, for the currency authority will, in normal times, have little occasion to sell gold, as the credit balance of India is usually very large and therefore India requires to sell no gold for use abroad'.² But this is to commit the same mistake as the official apologists of the pre-War currency system frequently indulged in. A favourable balance of trade is not a correct measure of a country's requirements of currency for *internal* trade. If the balance of trade continued favourable for a series of years, it does not mean that from the point of view of stability of purchasing power of the monetary unit there would never be a need to contract the currency. The obligation to sell gold would be effective, not merely when India required to sell gold for use abroad, but whenever the currency was redundant owing to an injudicious policy of the reserve bank, or whenever the purchasing power of the unit of currency tended to fall *below* that of its fixed gold equivalent.

¹ See *Hilton Young Commission Report*, Minutes of Evidence, Qq. 15313, 15409.

² See Brij Narain, *op. cit.*

A critic of the report believes that Mr. Lindsay's gold-exchange system is essentially the same as the gold bullion standard.¹ But notes and rupees were *not* freely convertible into gold *inside* the country under the Lindsay Scheme; they would be under the gold bullion standard. The substitution of *sterling* money for gold bars marks a fundamental difference, the one makes the rate of exchange the test of deficiency or redundancy of the currency; the other the 'deviation in the internal purchasing power of the monetary unit from its parity with gold'.

The pre-War gold-exchange system of India has been rightly condemned as 'a system of inconvertible money', but the gold bullion standard must not be confounded with that and placed in the same category of inconvertible money.² Under the pre-War currency system, the currency notes were really notes printed on silver, but the gold bullion standard would make the notes convertible into gold bullion instead of inconvertible token coins of silver, and would thus attach to them, in the words of the Commission, 'a more solid right of convertibility than they ever had since silver ceased to be a reliable standard of value'. Convertibility of currency into gold *bars* would serve the same essential purpose as its convertibility into gold coins, namely the maintenance of a fixed parity between gold and the purchasing power of the monetary unit. It would be more and not less effective in securing automatic expansion and contraction of currency. It is true that the Commission fixed a limit of 400 ozs. of gold as the minimum quantity which the holder of legal tender

¹ See Brij Narain, *op. cit.*

² *Ibid.*

could demand as of right in exchange for his currency from the currency authority with the result that the holder of a ten-rupee note, for instance would not be able to convert it into gold directly at the currency office. But similar is the position of the holder of a pound note under the new gold standard in England; and as pointed out by Professor Cannan, 'if ten thousand rupees (twenty-three thousand under the Commission's recommendation) are convertible, that will secure that each of the ten thousands is worth whatever the conversion rate prescribes', there being no difficulty about collecting large numbers of these small units to make conversion worth while. Thus, under the gold bullion standard the notes and rupees would be no more inconvertible than the Bank of England notes are under the Gold Act of 1925.

8. Attempts have been made to belittle the virtues of the gold bullion standard by suggesting that it provided for contraction of currency not for 'all purposes' but only 'for export'. The critics contend that this is the real meaning of paragraphs 64 and 150 and Schedule I of the report. Even if this criticism were true, it would still mark a fundamental difference between the pre-War system and the standard suggested by the Commission. Under the former, the sale of foreign credits, even when followed by an exactly corresponding contraction of currency, was only deflationary in its local effect, but was not inflationary in its external effect as the export of gold under the gold bullion standard would be. This reliance on foreign credits instead of gold, moreover, entailed, as Sir James Brunyate pointed out to the Commission, 'a relationship of monetary subordination to the centre on which the foreign credits are

given'.¹ Worse even than this was the fact that under the pre-War system there was no undertaking to provide *unlimited* external credits ; Government offered to sell only a stated weekly amount of sterling in times of weak exchange. As Sir James Brunyate put it, 'it was not an undertaking continuously to *maintain* exchange ; it may be described rather, as an undertaking which bound us, as long as we had resources, to use those resources in *restoring* exchange if exchange had fallen outside the gold points.'² In all these respects an unlimited undertaking to sell gold for export under the gold bullion standard would mean a substantial change for the better.

But apart from want of appreciation of this fundamental difference between the pre-War system and the new gold standard, a careful perusal of the references cited will show that there is nothing in them to justify the critics' inferences. Paragraphs 64 and 150 deal with the rates of buying and selling gold and aim at finding out the rates that would prevent 'the currency authority from becoming the cheapest market for gold in India in all ordinary circumstances', and so 'practically destroying the wholesale bullion market'. In order to achieve this object (and not avoid the internal convertibility of the currency) the Commissioners proposed 'to fix the selling prices of gold at rates which will enable the bank to replenish its stock of gold without loss by importation from London'. Far from impeding internal convertibility of rupees and notes into gold, these rates were intended to ensure it by enabling the

¹ *Hilton Young Commission Report*, Appendix LXXVI, paras. 7, 21 and Minutes of Evidence, Q. 11457.

² *Ibid.*, Q. 11322.

currency authority to replenish its stock of gold without loss by importation from London. If the bank were to sell gold in exchange for rupees and notes at par whatever the rate of exchange between the rupee and other gold standard currencies, it would be the cheapest market for gold bullion at all times when exchange was below the gold import point, and would have continually to import gold for non-currency requirements at the expense of the taxpayers. The Commission, therefore, rightly suggested that the selling price of gold should take into account the cost of importing gold at the prevailing rate of exchange; but this does not at all imply refusal on the part of the reserve bank to convert rupees and notes into gold at rates which would enable it to replenish its stock of gold without loss by importation from London. At the rates recommended in Schedule I, 'the gold bars are to be given in exchange for notes or silver rupees, not for export only but for any purpose', and when, at these rates, 'gold bars are given by the currency authority for notes or rupees, the currency is contracted'. This is what paragraph 60, read with paragraph 64, really means. Nor does the sentence 'the reserves exist to assure the maintenance at parity with gold of the purchasing power of the monetary unit, that is to meet purely monetary needs' mean, as the critics assume it to mean, that these reserves should exist only to maintain the *external* value of the currency, for the expression 'the purchasing power of the monetary unit' includes the purchasing power of the rupee, 'both internally and externally' as is explicitly stated in paragraph 114. Of the two, the Commission considered the internal stability of the rupee as the more important, for 'internal stability is

the main factor to achieve external stability'.¹ If the purchasing power of the rupee should fall below that of its gold equivalent, the only way to restore its parity with gold would be to contract the currency; that is the time when the gold reserve would be utilized for withdrawing currency. If people wanted bullion, not because currency was redundant, but because they needed it for non-monetary purposes, they must buy it from the bullion market at the market rate, or from the currency authority at rates which would enable it to replenish its stock of gold without loss by importation from London. The currency authority was to keep reserves, not in order to meet the bullion needs of India, but in order to withdraw currency when it was in excess of the country's requirements, or rather, when its purchasing power tended to fall below that of its bullion equivalent. If, in any circumstances, people should call upon it to meet their bullion needs, it could only do so by importing gold from abroad and should, therefore, charge rates which would ordinarily make it more profitable for people to buy gold from the bullion market.

Perhaps the best way to answer criticism of this sort is to let the following extracts from the report speak for themselves :—

Paragraph 54. The essence of the proposal which we proceed to develop is that the ordinary medium of circulation in India should remain as at present the currency note and the silver rupee, and that the stability of the currency in terms of gold should be secured by *making the currency directly convertible into gold for all purposes*, but that gold should not circulate as money.

Paragraph 58. The obligation is to convert the currency,

¹ *Report*, para. 115.

not merely into foreign exchange, but into metallic gold, and *it is an obligation that is not, as formerly, conditional and circumscribed, but absolute and unlimited.*

Paragraph 59. We propose that an obligation be imposed by statute on the currency authority to buy and sell gold without limit at rates determined with reference to a fixed gold parity of the rupee but in quantities of not less than 400 fine ounces, *no limitation being imposed as to the purpose for which the gold is required.* The fulfilment by the currency authority of this obligation will secure the *stability of the gold value of the rupee, and the stability of exchange within* gold points corresponding to the selected parity. Gold is thus made the standard of value. The rupee is linked to gold and not to sterling or to any other currency or group of currencies.

Paragraph 69. Since gold bars are to be given in exchange for notes or silver rupees, not for export only, but for any purpose, this is not an exchange standard ; it is an absolute gold standard. Nevertheless, the company mechanism of the exchanges is preserved, because gold bars are not currency. When gold bars are given by the currency authority for notes or rupees, the currency is contracted, while, on the other hand, when gold bars are given to the currency authority for notes or rupees, the currency is expanded.

Paragraph 61. The *statutory* obligation to buy and sell gold for rupees *without limit at a prescribed parity* for the first time in the history of the rupee will base it on gold, firmly and in a manner that is conspicuously visible. It establishes the principle that gold is the standard of Indian currency at a fixed ratio, that the currency authority admits it, and must maintain it.

Paragraph 64. If the currency authority were compelled to sell gold at a price exactly corresponding to the par value of the rupee, it would at once become the cheapest market for gold in India in all ordinary circumstances for the selling price so determined *would take no account of the costs of importation, nor of any deviation in the value of the currency from its gold parity.* Apart from practically destroying the wholesale bullion market, the currency authority would inevitably become involved in the performance of a task which does not properly belong to it..... It is essential, therefore, that the conditions which are to govern the sale of gold by the currency authority should be so framed as

to free it in normal circumstances from the task of supplying gold for non-monetary purposes. In order to achieve this object we propose to fix the selling prices of gold at rates which will enable the bank to replenish its stock of gold without loss by importation from London. Thus, when exchange is at the upper gold point the selling price for delivery at Bombay will be the par value, that is Rs. 21-3-10 per tola. When exchange is below this point, the bank will be required to sell gold for delivery in London or Bombay at the option of the purchaser, at certain notified prices.

Paragraph 150. The bank shall sell to any person who makes a demand in that behalf at its offices at Bombay, Calcutta, or Madras, during the office hours of the bank and pays the purchase price in legal tender money, gold bullion for delivery at its Bombay office at the price of Rs. 21-3-10 per tola of fine gold, but only in the form of bars containing approximately 400 ozs. of fine gold. Provided that whenever the market rate for the selling price of telegraphic transfer on London is less than the upper gold point of exchange as defined below, the bank shall sell gold as aforesaid for delivery at its office at Bombay or in London at the option of the purchaser at prices hereinafter called the notified prices.

Schedule I, Paragraph 3. It cannot be assumed that, in the case of India, gold movements can be confined to those for purely monetary purposes; unless, therefore, the central bank is relieved of the necessity of supplying gold within the two gold points of the exchange, it would be exposed to a constant drain upon its gold reserves for purposes other than those for which they are held.....The reserves exist to assure the maintenance at parity with gold of the purchasing power of the monetary unit, that is to meet purely monetary needs. It is evident that, if they can be drawn upon in the ordinary course to satisfy non-monetary purposes to anything but a minor extent, the bank's primary task, namely to maintain the external value of the currency will be jeopardized.

Evidently the critics have been misled by the last sentence, 'the bank's primary task, namely to maintain the external value of the currency will be jeopardized', into thinking that the maintenance at parity with gold

of the internal purchasing power of the money unit was not meant to be one of the primary functions of the bank and that the obligation to sell gold was intended only for securing the external value of the rupee. But in reading Schedule I, especially its first paragraph, it should be borne in mind that, except as to the method of computing the buying and selling rates, it is not a part of the report; that it cannot be considered as a part of the formal exposition of the gold bullion standard by the Commission; and that the reason why only the movements of gold between one gold standard country and others are considered in the first paragraph and nothing is said about the inflow and outflow of gold due to changes in the *internal* demands of currency is that only the former were relevant to the purpose in hand, namely the computation of buying and selling rates necessary for the purpose of preventing the currency authority from becoming the cheapest market for gold. In order to find out what is intended to be 'the primary task of the bank' reference must be made not to Schedule I but to paragraph 114 of the report which bears the heading 'The Primary Task of the Bank' and which reads as follows: 'The goal of all monetary policy is the achievement of stability of the purchasing power of the monetary unit, and the condition under which the sole right of note-issue is entrusted to the bank must clearly be the obligation to maintain stable the purchasing power of the rupee, both internally and externally. This stability will find expression, internally in the stability of the general level of commodity prices, and externally in the stability of the purchasing power of the monetary unit in relation to gold.....To assure this stability, it is indispensable that the obligation should be put upon the

bank at all times to buy and sell gold at fixed prices which are laid down in the charter.' This explicit statement ought to set at rest the doubts of sceptics on this point.

The following sentence in paragraph 115 of the report has led one of the critics¹ to argue that the Commissioners themselves did not believe that currency would need to be contracted except in times of weak exchange: 'And if the exchanges are stable and keep within the upper gold points set by the fixation of the price at which the reserve bank undertakes to buy or sell gold, it will not be called upon either to buy or sell gold.' A reference to paragraph 115 of the report will convince even a superficial reader that this sentence, read with the context, means something quite different from what the critic suggests. The concluding three sentences of the paragraph in question read as follows: 'It clearly follows that stability of internal prices in relation to the world level of gold prices will prevent those repercussions, and will therefore prevent stability of the external value of the monetary unit, that is of the exchanges. And if the exchanges are stable, and keep within the upper or lower gold points set by the fixation of the price at which the reserve bank undertakes to buy and sell gold, it will not be called upon either to buy or sell gold. Provided, therefore, the bank follows a judicious policy of limiting the monetary circulation to the actual need of the country by an appropriate credit policy and so keeps the internal value of the rupee stable, the obligation to buy and sell gold will cause it no embarrassment.' It is plain that far from underrating stability of the

¹ See Brij Narain, *op. cit.*, p. 5.

internal value of the rupee, the Commission emphasized its importance over and over again. And no one can argue with any show of reason that currency should be contracted or gold given in exchange for rupees when both the internal and external value of the rupee remain stable.

It is perfectly true that if 'the bank follows a judicious policy of limiting the monetary circulation to the actual needs of the country by an appropriate credit policy and so keeps the internal value of the rupee stable'¹ there would be no need, except sometimes for the purpose of export, to convert rupees and notes into gold bullion. The same thing, however, held good of any gold currency standard country in pre-War days. So long as the discount policy was properly managed, there was no redundancy of currency and no occasion to convert notes or cheques into gold except when an external pull was applied, either because of an adverse balance of trade or account.² But what compelled the central bank in a country on a gold currency to pursue a right discount standard policy or to realize forcibly the consequences of an injudicious policy? Precisely this obligation to convert currency freely into gold. Convertibility is a safety-valve; the fact that, when things are managed wisely there is no need for it, is no argument for denying that good management is ensured precisely because of the safety-valve. It is convertibility at fixed rates, whatever the rates may be, that would make the gold bullion standard as 'knave proof' and 'fool proof' as a gold currency

¹ *Hilton Young Commission Report*, para. 115.

² For the need of a correct discounting policy under the gold currency standard see *ibid.*, Minutes of Evidence, Q. 10170.

standard could ever be.¹ It is this which ensured a judicious policy both in the matter of discount rates and in respect of note-issue, and which, through it, not only led to automatic expansion or contraction of currency and credit, but also confined exchange variations within the gold points in accordance with the seasons and state of trade. It is precisely because of this reason that the Commission explicitly stated that 'to assure this stability (internal and external) it is indispensable that the obligation should be put upon the bank at all times to buy and sell gold at *fixed* prices which are laid down in the charter'. But this constant convertibility of the media of exchange into gold only would be possible if the bank rate policy kept the demand for means of payment within reasonable limits.² Popular misconceptions on this point are perhaps due to an imperfect appreciation of the real significance of the emphasis laid by the Commission on an appropriate discount policy. Post-War experience shows that mere internal convertibility into gold is *not enough* to maintain the stability of the monetary unit. In the United States, which has a gold currency system, it has been found necessary to sterilize gold and regulate credit and currency without exclusive or even main reference to the incoming or outgoing of gold. In other gold standard countries prices and credit are kept by a proper discount policy at such a level that the strain thrown on the adjusting mechanism of gold

¹ Compare Sir Montague Norman's answer (*Hilton Young Commission Report*, Minutes of Evidence, Qq. 14482-4): 'Is there anything in the point that a gold bullion standard.....is more liable to manipulation than a gold specie standard.....?—Neither Sir Charles nor I see any difference.

² See Cassel, *The Theory of Social Economy*, vol. II, pp. 475-6.

movements is reduced to a minimum. As Professor Cassel explains in his *Money and Foreign Exchange after 1914*, 'The gold parity requires a certain fixed price-level. Should the price-level deviate *considerably* from this normal level, *no power in the world can maintain the gold parity*. Should the country, for instance, through a too generous credit policy, cause its price-level to rise considerably above the normal level, then gold must leave the country, *and if that fails to rectify the credit policy, no amount of gold reserves in the world can be sufficient to maintain the country's gold standard*. It is only a want of clear knowledge as to the essential character of a gold standard that induces people to *imagine that there is no need to regulate the price-level where a gold standard is concerned*. Perhaps it is not directly apparent, because the *necessity for keeping up payments in gold compels the pursuit of such a credit policy* as will constantly tend to bring the price-level into conformity with the normal level.' In other words, internal convertibility into gold is useful only so far as it compels the maintenance of a price-level normal to the fixed gold parity through a proper discount policy; but it is the discount rate of a central bank which is the actual lever by which the value of the standard is maintained.

Perhaps the best way to appreciate the reasons for the Commission's recommendation regarding these rates of conversion is to suppose for a moment that rupees and notes are made freely convertible into gold coin instead of gold bullion. Will the critics then think of charging no seigniorage or so fixing the rates of conversion as to make the currency authority 'the cheapest market for gold in India in all ordinary circumstances'? Will they not so frame the conditions

governing the conversion of rupees and notes into gold coin as to free the currency authority 'in normal circumstances from the task of supplying gold for non-monetary purposes' and fix such rates of conversion as will enable the bank to replenish its stock of gold without loss by importation from London?

A question may well be asked as to why such rates have not been imposed under the gold bullion standard in England. The answer is that in the first place, the proportion of the demand for gold for *non-currency* purposes to that for monetary purposes is infinitesimal in England whereas it is over 98 per cent of the demand in India, and that, in the second place, owing to the Bank of England's statutory obligation to sell gold at 77s. 10½*d.* and to buy it at 77s. 9*d.* and the existence in London of one of the largest bullion markets, it is in practice nearly always as cheap or cheaper in London to buy gold bullion from the market rather than from the Bank of England.¹

9. Professor Cannan's authority is sometimes cited in favour of the erroneous views that there is no essential difference between the pre-War exchange standard and the gold bullion standard.² As a matter of fact what Professor Cannan said in his evidence was something quite different, as the following extract from his evidence will show :—

Q. 13209. Will you explain to us in what respects the gold currency standard is simpler and less liable to be broken?—I should have thought it was fairly obvious why it is simpler.

¹ See Sir Basil Blackett's evidence, *Hilton Young Commission Report*, Minutes of Evidence, Qq. 10002, 10137; also Mr. Kisch's evidence in cross-examination by Sir Henry Strakosch (*ibid.*, Qq. 11650-8).

² See Brij Narain, *op. cit.*, p. 6.

Q. 13210. If I may suggest a comparison, *not with the system which has hitherto prevailed in India* but with a simple gold-exchange standard based upon an obligation on the part of the central bank to buy and sell at fixed rates the means of international payment, what would you say to that?—I think when you get on to the bare bones of the gold-exchange system there is very little difference between the two. Some people say that *this country is on a gold-exchange standard system now.*

Q. 13211. Then I rather take your answer to mean that if the gold-exchange system is defined with sufficient precision and reduced to its most scientific minimum, there is, in your opinion, no great difference in simplicity between that and the gold currency standard?—There is not really, but I doubt very much whether ordinary persons will be able to understand it as well even then.

To a certain extent the confusion of the gold bullion standard with the pre-War exchange standard¹ is due to a difference of opinion in the matter of nomenclature. An Indian critic prefers to call the present English gold standard an inconvertible paper standard; Dr. Gregory calls it a gold-exchange standard;² Professor Cannan considers the application of the term 'gold-exchange standard' to the new English standard as unsatisfactory 'because it has other associations, and the "gold" in it was *some foreign currency* based on

¹ Compare also Professor L. N. Vakil: 'Unfortunately our system has been popularly described as being a gold-exchange standard one, and the ideal gold-exchange system, the system working in England at present being called a gold-exchange standard is substantially different from our system.'—*Hilton Young Commission Report*, Minutes of Evidence, Q. 4122.

² 'Under the new arrangements obtaining in this country (that is England), we *possess a gold standard*, but not a gold currency. In other words we have adopted that particular currency system which is known as the gold-exchange standard.'—*The Return to Gold*.

gold, rather than gold as such'.¹ I call it 'the convertible rupee'; and the Commission call it a gold bullion standard. Call it by whatever name you will, the fundamental questions are whether it will give the country as stable a standard of value as a gold currency in circulation and whether it will be as automatic in its working. So long as it satisfies these two essential tests, it matters little what name you give it.

¹ *Economic Journal* (December 1925).

CHAPTER VII

SOME ASPECTS OF THE RATIO OR THE RATE CONTROVERSY

1. We have seen elsewhere¹ the main reasons which led the Hilton Young Commission to recommend that the rupee be stabilized at 1s. 6*d.* instead of at the pre-War ratio of 1s. 4*d.* The Commission were not unanimous in making this recommendation, the dissenting member having been unable to accept either the premises on which the majority based their arguments or the conclusion which it was sought to draw from them. After the publication of the report, a considerable section of public opinion in India supported the dissenting member and a Currency League was formed to carry on a vigorous propaganda in favour of the 1s. 4*d.* ratio both inside the Legislature and outside among the public. The echoes of the bitter controversy which arose over this question of the rate did not die out even after the passing of the Indian Currency Act of 1927 which gave the *de facto* rate of 1s. 6*d.* the sanction of law. As some of the arguments employed by both sides in the controversy have more than a passing interest for the student of currency problems, it is worth while examining them somewhat in detail in this chapter.

2. The most common ground for complaint against the recommendation of the Commission was the belief that the country would lose heavily by the 1s. 6*d.* rate and gain by reversion to the 1s. 4*d.* ratio. If, however,

¹ *Indian Currency, Banking and Exchange*, ch. ix.

we recall the conclusions reached in chapter I in connexion with the closing of the mints in 1893, we shall find very little justification for this popular view. *Other things remaining the same*, a rising exchange tends no doubt to be, in a sense, a bounty on imports and a handicap on exports during the period of maladjustment between the exchange rate, internal prices, and costs of production, but it is a bounty or a handicap not to the import or export trade *as a whole* but to only *one class* in the import or export trade at the expense of the other classes engaged in it. This bounty or handicap can be only *temporary* and not permanent, for it can exist only so long as the prices and wages in India do not fall in response to rising exchange. It therefore follows, that even if other things had remained the same, the trading or the producing community *as a whole* could not have suffered a permanent loss owing to a mere rise in the rate of exchange to 1s. 6d. and that even the temporary loss to one class of people must have largely disappeared if, as the Commission contended, prices, wages and contracts had for the large part been adjusted to the 1s. 6d. rate.

But do the facts of the period of rising exchange show even a temporary handicap on exports or a special stimulus to imports? It is since August 1921 that the sterling as well as the gold value of the rupee has tended to rise. But taking the first two years 1922-3 and 1923-4, it is found that exports of private merchandise *rose* from 245.44 crores in 1921-2 to 314.32 crores in 1922-3 and to 361.91 crores in 1923-4, while imports *declined* from 266.34 crores in 1921-2 to 224.31 crores in 1922-3 and to 217.03 crores in 1923-4. The main reasons for this phenomenon were, firstly, a substantial fall in the prices of cereals owing

to abundant harvests, which led to an increase in the export of rice from 24·91 crores in 1921-2 to 35·04 crores in 1922-3 and to 34·89 crores in 1923-4, and in the export of wheat from 1·46 crores in 1921-2 to 3·44 crores in 1922-3 and to 9·11 crores in 1923-4; and secondly, the intensity of the world's demand for some of India's main exports, for example raw cotton, jute (raw and manufactured) and tea. In spite of a rise in the index number of the price of cotton from 143 in 1921 to 191 in 1922 and 244 in 1923, the exports of raw cotton increased from 54·45 crores in 1921-2 to 71·09 crores in 1922-3 and 98·67 crores in 1923-4. The price index for raw jute rose from 83 in 1921 to 110 in 1922 and to 90 in 1923, but the exports of raw jute increased from 14·04 crores in 1921-2 to 22·52 crores in 1922-3 and to 20 crores in 1923-4. The index number of the price of jute manufactures rose from 105 in 1921 to 144 in 1922 and to 138 in 1923, and yet the Indian exports of these increased from 29·99 crores in 1921-2 to 40·49 crores in 1922-3 and to 42·28 crores in 1923-4. The index number of tea registered a rise from 100 in 1921 to 159 in 1922 and to 206 in 1923; but its exports rose from 18·22 crores in 1921-2 to 22·04 crores in 1922-3 and to 31·64 crores in 1923-4. During 1924-5 both exports and imports of private merchandise were greater than in the preceding year, exports rising from 361·91 to 398·17 crores and imports from 217·03 to 243·16 crores. In 1925-6 both fell below the level of the preceding year, *the fall in imports being very much greater than that in exports*. The total exports of merchandise were valued at 385·35 crores while imports were worth only 224·11 crores. It should be remembered that the *sterling* value of the rupee was steady in the neighbourhood of 1s. 6d. throughout the

period of the rise in the gold value of the rupee from 1s. 4d. to 1s. 6d. and that, therefore, there could have been no disturbance due to the rise in the gold value of the rupee on India's external trade with sterling-using countries. It is plain that exchange has been only a minor factor, more often than not neutralized by stronger influences, in determining the course of exports and imports since 1921. At any rate, during the years 1924 and 1925, *which alone are relevant in the discussions on the rate question*, no special handicap on exports or special stimulus to imports due to a rising gold value of the rupee is actually discernible.

It is sometimes contended on the other side¹ that though exchange was steady at 1s. 6d. during the years 1925-8, the very fact that exports during these years were lower and imports higher than in 1924-5 proves that there was a special handicap on exports and a special stimulus to imports owing to non-adjustment of internal prices to the 1s. 6d. rate during these years. But the table given overleaf proves conclusively that the year 1924-5 is not at all a normal year to take as a fair basis of comparison.

These figures show that exports in 1924-5 were abnormally high, and that though exports of merchandise during each of the years 1925-8 were less than in the year 1924-5, they were very much greater than the average of the five pre-War years ending 1913-4, the average of the five War years ending 1918-9 and the average of the five post-War years ending 1923-4. In 1927-8 exports were not only greater than the average of the fifteen years ending 1923-4 but also greater than the average of the eight years ending 1926-7; and in

¹ Compare the representation of the Indian Merchants' Chamber Bombay to the Finance Member in August 1929.

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	Exports ¹	Imports ²	Balance of trade in private merchandise
	(in lakhs of rupees)		
Average of the five pre-War years ending 1913-4	224,12	145,85	78,27
Average of the five War years ending 1918-9	224,14	147,80	76,34
Average of the five post-War years ending 1923-4	301,30	248,81	52,49
1924-5	398,17	243,16	155,01
1925-6	385,35	224,11	161,24
1926-7	309,45	229,98	79,47
Average of the eight years ending 1926-7	324,93	242,68	82,25
1927-8	328,69	246,73	81,96
1928-9	337,96	251,48	86,48

1928-9 exports exceeded the previous year's record by as much as 9.27 crores. On the other hand, imports in 1925-6 declined by 19.05 crores from their level in 1924-5 against a fall in exports of only 12.82 crores, and were lower than the average of the five years ending 1923-4 by as much as 24.70 crores. In 1926-7 imports were less than in 1924-5 by 13.18 crores and lower than the average of the five years ending 1923-4 by 18.83 crores. Even in 1927-8 imports did not approach the average of the five years ending 1923-4. The balance of trade in private merchandise in 1925-6 was greater than in 1924-5; both in 1926-7 and 1927-8 it was substantially higher than, not only the average of the five years ending 1923-4 but also the average of

¹ Including re-exports of foreign merchandise.

² Exclusive of the value of railway materials imported direct by State railways working under company management (see *Report of the Controller of Currency*).

the five War years ending 1918-9; and in 1928-9 it exceeded not only its level in 1927-8 but also the average of the eight years ending 1926-7, the average of the five years ending 1923-4 and the average of the five years ending 1918-9. It is plain that the actual course of India's external trade even during the years *following* the stabilization of exchange at 1s. 6d. gives no indication of any such adverse influence as the critics of Government have been led by their preconceived notions to believe in.

As to national finance, it has been shown in chapter I that the effect of a rise or a fall in exchange would vary with the cause that had brought it about. The normal rate of exchange depends upon relative price-levels, and the facts of the period in question show that the rise in exchange to 1s. 6d. was brought about partly by the rise in sterling prices between May and December 1924 and partly by a relatively greater fall in Indian prices between November and June 1925. To the extent that this rise in the rupee-sterling exchange was brought about by the depreciation of the purchasing power of sterling between May and December 1924,¹ India parted with less of her produce in discharge of her commitments abroad. The fall in sterling prices or the rise in the purchasing power of sterling between December 1924 and June 1925¹ forced India to part with a larger amount of produce than formerly to meet her sterling obligations; and had Indian prices remained the same, Government would have been forced to resort to increased taxation in some form or another. Owing, however, to the fall

¹ The English (*Economist*) index number was 168 in May and 180 in December 1924, and 162 in June 1925.

of Indian prices from 175 in November 1924 to 153 in June 1925—a fall much greater than the fall of English prices in the same period—Government were able to command by means of their rupee revenues from taxes more produce than was needed by them for the discharge of their liabilities abroad. To the extent that rupee prices fell *more* than English prices during the period, and it was partly this which sent the exchange up, Government gained at the cost of the taxpayer who, while giving nominally the same amount of rupees as before, parted in reality with a greater purchasing power over goods and services. But so far as the country *as a whole* is concerned, *some loss is inevitable in every fall of sterling prices* owing to sterling obligations, and the 1s. 4d. ratio would not have saved it from this inevitable loss. To talk of India gaining crores of rupees a year by fixing exchange at 1s. 4d. is an obvious absurdity. If India could gain so much by a fall in exchange to 1s. 4d., why not continue merrily the process of depreciation till the rupee comes down to 10d. or even less?

3. It has been repeated *ad nauseam* that agriculturists form 79 per cent of the population and that this class have suffered heavily as sellers of produce, as taxpayers and as debtors by the rise in exchange. One critic of the Commission estimated the cultivators' loss at '45 crores of rupees a year on some 360 crores of our exports' in addition to 'another 40 to 45 crores a year on the portion of the crops that is consumed at home';¹ another stalwart of the Currency League improved upon this estimate and argued that Indian agriculturists got 250 crores less per year on their

¹ Mr. B. F. Madon.

crops alone.¹ The Indian Merchants' Chamber of Bombay put the increase in the real burden of the agriculturists' debt at 100 crores of rupees. Over and above this, the agriculturists were said to have suffered a loss of $12\frac{1}{2}$ per cent on account of the alleged increased incidence of the land revenue and a few hundred crores more by the fall in the price of silver due to the manipulation of exchange.

It is easy to see the element of gross exaggeration in these estimates of losses. In the first place the agriculturists in India form 71 per cent and not 79 per cent of the total population according to the census of 1921. In the second place, if these agriculturists had suffered such heavy losses, we should have had some visible symptoms of a general cataclysm, such as widespread default in the payment of the land revenue, a sudden and great rise in the total number of suits on account of forfeiture and eviction proceedings in the law courts, an immense increase in the number of landless and homeless labourers wandering in search of work, and a serious fall in the amount of capital and deposits of the rural co-operative credit societies along with a marked increase in their proportion of arrears to outstandings, in the amounts of loans granted by them for unproductive purposes and in the rate of interest charged by them to their members.² But the statistics of the country as a whole instead of showing any such evidence of catastrophic ruin of the farmer during the period under consideration, showed instead an increase of deposit and share capital of rural co-operative

¹ Mr. Khaitan.

² See Coyaji, *op. cit.*, pp. 4-8.

credit societies and a decline in their arrears and overdues.

Besides these exaggerations, there are a number of fallacies in the line of reasoning followed by these critics of the Commission. The rise in exchange affects the agriculturists not directly, but only through the consequent *fall* in prices. If, as the critics contend, the internal prices had not adjusted themselves to the 1s. 6d. rate of exchange at the time the Commission reported, the agriculturists could not possibly have lost '40 to 45 crores a year on the portion of the crops that is consumed at home' nor could there have been $12\frac{1}{2}$ per cent increase in the burden of their land revenue by the mere rise in exchange without the *corresponding fall in prices*. Apart from this obvious inconsistency, the critics assume that high prices are good for the bulk of India's population and that a fall in prices would affect most of the agriculturists adversely—an argument employed very often by official apologists of the Indian currency system in the past and criticized severely by the non-official public led by Mr. Gokhale. The great rise of prices during the War period and the consequent suffering among the masses converted the officials to the non-official view of the matter; and even Mr. Datta who had attempted to make out a strong case for high prices in his official report on prices in India in 1911 was compelled by the logic of facts to repudiate it in his evidence before the Babington Smith Committee. But it suited the leaders of the Currency League to pick up the old cast off clothes of the officials and make them look respectable in the eyes of the public. A little reflection will, however, show that it is an error to lump together in this matter all the agriculturists into a *single class* as if they would *all* be

affected in the *same* way by rising or falling prices. There is the numerous class of farm servants and field labourers, estimated in the census of 1911 at over 41 millions and in that of 1921 at 38 millions, who ordinarily stand to lose by rising prices and to gain by falling prices, except so far as their wages are payable in kind and not in money. There is the small cultivator or tenant who ordinarily has little surplus to sell and lives mainly on what he produces, and who therefore is unaffected by fluctuations of prices.¹ It is only the remaining *few* among the agriculturists, *having a surplus for sale*, who can possibly gain by a rise of prices or lose by a fall. Even this class secure by a fall of prices some compensation against the loss on sales; they pay less for at least some of the commodities they buy,² they get their ornaments more cheaply,³ and what they save in rupees has more purchasing power. When allowance is made for all these factors, it will be plain that it is only a *minority* of the population that stands to gain by rising or lose by falling prices. Statistical data for the whole of India are wanting, but if the investigations of Dr. Mann in two of the food-producing villages of the Deccan (and 78 per cent of the cultivated land in India grows food-grains) are any guide, it cannot be doubted that *on the whole* the

¹ This is perhaps the most numerous class of agriculturist producers (see *Hilton Young Commission Report*, Minutes of Evidence, Q. 769).

² This is true not only of imported commodities like cotton goods and hardware, but also of many other goods, for the man who grows cotton does not necessarily grow wheat, rice, *bajri* or *jowar* and may therefore gain by a fall in the price of these.

³ For admissions made on this point by the Bombay witnesses see *Hilton Young Commission Report*, Minutes of Evidence, Qq. 4044-7.

net effect of rising prices on rural prosperity is *adverse* and that of a fall in prices beneficial.

It is true that a *limited* number of agriculturists who have a surplus for sale have been hit hard by the fall in prices since 1918–20, but it must not be forgotten that the advocates of stabilization at 1s. 4d. gold cannot with any show of consistency object either to the fall of Indian prices which was necessary to raise the Indian exchange from 11 $\frac{9}{32}$ d. gold in August 1921 to 1s. 3 $\frac{7}{8}$ d. in September 1924, or to the fall of prices *subsequent* to the adjustment of prices to 1s. 6d. gold, *since stabilization of the rupee at any fixed rate in terms of gold necessarily implies that Indian prices at the ports must be made to move in sympathy with the rise or fall of world prices.*

The point at issue is, therefore, not the *whole* loss to the agriculturist on account of the fall in prices since 1921 *but only the loss which is directly traceable to the rise in exchange* from 1s. 4d. in October 1924 to 1s. 6d. gold in June 1925.¹ Turning, however, to the changes in prices in agricultural produce since October 1924, one finds very little justification for the alarm that was raised by the Currency League among the agriculturists who have a surplus for sale. An examination of Mr. Findlay Shirras' estimate of the total agricultural income of India for the year 1920–1 shows that food-grains form 52·4 per cent of the total value, sugar only 5·1 per cent, cotton 1·9 per cent and oil-seeds 4·5 per cent, and that out of the total acreage of 238,933,187 acres devoted to agricultural crops,

¹ Compare Sir Victor Sassoon : 'We are not complaining about any rise in exchange up to 1s. 4d. gold which took place about September 1924.'—*Hilton Young Commission Report*, Minutes of Evidence, Q. 25024.

nearly 187 million acres grow food-grains, less than 3 million acres grow sugar, 14 million acres are taken up by cotton and 26 million acres are devoted to oil-seeds; and statistics relating to prices indicate that while the Bombay index number of food-grains *rose* from 138 in November 1924 to 150 in September 1926, that of oil-seeds fell from 147 to 140, that of sugar from 187 to 156, and that of cotton from 234 to 140. Taking even the yearly average for the whole of the period 1924-6, it is found that the Calcutta index number of cereals rose from 123 in 1924 to 140 in 1926 and that of pulses rose from 114 in 1924 to 149 in 1926, while that of oil-seeds fell from 144 in 1924 to 134 in 1926, that of sugar from 239 in 1924 to 178 in 1926, and that of cotton from 272 in 1924 to 147 in 1926. Since 78 per cent of the cultivated land in India grows food-grains,¹ it is plain that the *bulk* of the agriculturists who have a surplus to sell even *gained* rather than *lost* by changes in prices during the period relevant to the issue. Nor is there any doubt that such a serious fall as took place in cotton prices could not have been due *mainly* to the rise in exchange from 1s. 4d. to 1s. 6d.

Even in the case of growers of cotton, sugar and oil-seeds, who appear to have lost by the recent fall in prices, equity does not seem to require any redress. *These are exactly the classes who gained the most by the abnormal rise of prices due to War and post-War inflation, and ought in fairness to have borne the brunt of the burden of falling prices.* The Calcutta index number

¹ Compare Sir Victor Sassoon's admission that 80 per cent of the population has to depend on cereals and pulses (*Hilton Young Commission Report*, Minutes of Evidence, Q. 5099).

of sugar rose from 100 in July 1914 to 180 in 1918, 268 in 1919 and 407 in 1920, and that of cotton registered a rise from 100 in July 1914 to 194 in 1919. In the case of cotton,¹ the loss due to falling prices appears to be unduly large if estimated from 1924 as the base year, because the cotton prices in that year were abnormally high as compared with the preceding five years, the Calcutta index number of cotton being only 244 in 1923, 191 in 1922, 143 in 1921, 153 in 1920 and 230 in 1919.

Nor must one lose sight of the fact that both the growers of cotton and sugar were, relatively to other classes, better off during the period 1924-7 than in July 1914. Taking July 1914 as the base, the general index number of prices was 173 in 1924, 159 in 1925 and 148 in 1926 and 1927, while the index number of cotton was 272 in 1924, 205 in 1925, 147 in 1926 and 167 in 1927, and that of sugar was 239 in 1924, 179 in 1925, 178 in 1926 and 171 in 1927. In the case of oil-seeds, however, the index number of prices has generally lagged behind the general level of prices, being 144 in 1924, 146 in 1925, 134 in 1926 and 143 in 1927. But even in the case of the producer of oil-seeds, the *relative* position seems to have *improved* rather than become worse *since 1924*, the difference between the index number of general prices and that of oil-seeds being very much *less* in 1927² than in 1924.

There is, however, a substratum of truth in the

¹ Compare Sir Henry Lawrence: 'This cotton cultivator represents only five per cent of the cultivators of India.'—*Hilton Young Commission Report*, Minutes of Evidence, Q. 6736.

² Also in 1928, the general index number being 145, while the index number of oil-seeds was 142.

common complaint that the purchasing power of the agriculturist producer has gone down in recent years. Between 1873 and 1913 the index number of exported commodities, mostly agricultural products, rose by 54 per cent while that of imported commodities registered a rise of only 17 per cent. During the War period 1914–8 the position was reversed, the index number of imported articles, mostly manufactured articles, having risen from 117 in 1913 to 289 in 1918 as compared with the rise in the index number of exported commodities from 154 in 1913 to 199 in 1918. By 1920 the former came down to 280 while the latter rose to 281. *But this phenomenon is by no means peculiar to India.* All over the world the prices of agricultural produce have not risen to the same extent as those of manufactured articles, and this has caused difficulties in all agricultural countries. Since 1920, however, the position of the agricultural producer of export commodities in India has tended gradually to *improve*, the imported articles falling *more heavily* in price than the export commodities. Between 1920 and 1927 the index number of imported articles came down from 280 to 185 against a fall in export prices from a level of 281 to one of 209. At any rate, the rise of exchange from 1s. 4d. to 1s. 6d. gold cannot by any stretch of logic be held responsible for this worsening of the relative position of the farmer in India, for during the period between October 1924 and June 1925, the margin between export and import prices *contracted* to the advantage of the agriculturist seller of export commodities. Taking 1913 as the base year, the index number of exported articles was 151 in October 1924 and 145 in June 1925—a fall of only 6 points or 4 per cent—while the index number of

imported articles fell during the same period from 205 in October 1924 to 189 in June 1925—a fall of 16 points or about 8 per cent. Sir Victor Sassoon wished to bring about by a fall in exchange ‘*higher prices* for certain produce like cereals and pulses’ so as to make their index numbers ‘approach more nearly to the general average and more particularly nearer to the figure for cotton goods’ in order ‘to give the ryots more money to spend on cotton cloth etc’.¹ But the same object should have been served by bringing about a *greater* fall in the prices of manufactured goods than in those of cereals and pulses. And this is precisely what actually happened between October 1924 and June 1925. During this interval there was a *fall* in the index number of cereals from 138 to 137 and a *rise* in that of pulses from 118 to 125, while the general index number of all commodities *declined* from 176 to 153 and that of cotton manufactures from 225 to 212. Even in March 1927 when the ratio controversy was at its height, the index numbers of cereals and pulses stood at 141 and 155 respectively while that of cotton cloth had fallen to 163 and the general index number to 146.

As a taxpayer, the agriculturist whose land revenue was fixed during the period 1917–24 when the prices were higher than the present level has undoubtedly suffered by the fall in prices since the revenue settlement of his land. But the fall in prices between 1918 and September 1924 would have been equally necessary in the case of the 1s. 4d. ratio; the 1s. 6d. rate is directly responsible only for that burden which is due to the excess of the fall in Indian prices over that in English

¹ *Hilton Young Commission Report*, Minutes of Evidence, Q. 5041.

prices during the period between November 1924 and June 1925. But if questions of equity are relevant in matters of currency reform, it is unfair to take only this limited period into consideration. Between 1900 and 1918, prices were rising continuously, and the agriculturist whose land revenue was fixed when prices were comparatively low gained during the following period of higher prices. Even to-day thousands of agriculturists whose land revenue was fixed before 1917 are better off than at the time of settlement.¹ On the other hand, men with fixed incomes and wage earners, whose wages generally lag behind prices, have been suffering all along since 1900. It must be borne in mind that as the country as a whole parted with less produce when sterling prices were soaring high, the country as a whole has to part with *more* of its produce now that sterling prices are falling, in order to discharge its foreign liabilities; and in fairness this additional burden must fall on the *very class that secured relief during the period of rising prices*.

Much the same thing has to be said regarding *long term contracts*² between creditors and debtors. If the debtors have the prescriptive right to rising prices and the creditors only a prescriptive duty of allowing themselves to be cheated, let us frankly be Bolsheviks. But apart from this, there is a serious error in Sir Purshotamdas Thakurdas' reasoning in paragraph 127 of his dissenting minute. *Increase in the burden of old*

¹ See *Hilton Young Commission Report*, para. 194.

² The vast bulk of contracts in every country are contracts for purchase and sale, which are typically short term contracts discharged by either payment of cash on the spot or by bills of less than three months' maturity (*ibid.*, Minutes of Evidence, Qq. 6191, 8072).

debts is brought about, not by a rise in exchange but by a fall in prices; and prices even to-day are *higher* than the level of the years 1900-17. Even if the bold assumption that the greater part of 800 crores of the agriculturists' debt was contracted during 1900-17 be allowed to pass unchallenged, it cannot be doubted that the burden of this debt must have *decreased* by the rise of prices since 1900. In fine, equity points to the restoration of the level of prices in 1900 or at least in 1913, and not to that of the pre-War level of exchange, for injustice is due to the rise or fall of *prices* and not to the rise or fall in exchange. It is conceivable that exchange may rise or fall, not because of any change in the price-level, but because of changes in prices abroad; no question can then arise between the different classes of the community.¹

The truth is that the currency reformer has to

¹ Compare Sir Basil Blackett in his oral evidence before the Commission: 'But the difficulty in this case seems to be that not only have you had very frequent changes in the rates of exchange since 1914 but you had a change in prices from 1900 to 1914 all over the world, which in itself was something of a revolution in favour of the debtor. Prices during that period rose ten or fifteen per cent at least; so that it is perfectly impossible to suppose that you can arrive at a solution which will do absolute justice both to the creditor and the debtor at the present moment.'—*Report, Minutes of Evidence, Q. 77*. See also Mr. A. C. McWatters' answer to Question 781 in which he pointed out: 'The price-level is the main factor that has altered, and there have been price-levels in between very much higher than the level now. There has been a constant maladjustment and this occurs even in normal times; injustice is constantly being done to some one or another through variations in the price-level; but the maladjustment in the period since 1914 is so great that there is no sanctity, in my view, in one rate rather than another.'

keep aside all these nice considerations of equity. His role is a limited one, he must look only to the facts and tendencies of the present and the immediate future,¹ he must consider only what is practicable with the least possible disturbance. At this stage attention may be invited to the remarks of the disinterested expert, Professor Cassel, as to the sanctity of the 1s. 4d. ratio. 'The idea that the rupee must necessarily be restored to the pre-War gold parity of 1s. 4d. has', he says, 'a striking resemblance to the programme of raising depreciated currencies to the pre-War parity which has played such an unfortunate role in the recent monetary policy of many European countries. If no better reason can be given for choosing 1s. 4d. as a value at which the rupee should be stabilized the idea ought to be abandoned, and the sooner the better.'

4. Let us now deal with some of the points raised in the dissenting minute of Sir Purshotamdas Thakurdas. In paragraph 67 he contends that 'the Government of India could have stabilized the rupee at 1s. 4d. gold in September 1924, thus restoring the long established legal standard of money payments, if they had chosen to do so'. In that month the index number of prices in the United States stood at 149, that of Calcutta at 175 and that of Bombay at 181.² The United States index number was again at 149 both in August 1926 and September 1927 when the Calcutta index number

¹ Compare Professor Fisher's dictum : 'The problem of a just standard of money looks forward rather than backward, it must take its starting point from the business now current, and not from imaginary pars before the War.'

² 1914=100.

was 147 and 149 respectively and the Bombay index number 148 both in August 1926 and September 1927, the rate of exchange being 1s. $5\frac{1}{2}d.$ gold in August 1926 and 1s. $5\frac{1}{4}d.$ gold in September 1927. If therefore, the contention of Sir Purshotamdas implies that the *normal* rate of exchange as determined by relative price-levels was 1s. 4d. gold in September 1924, prices in August 1926 should have been *raised* sufficiently high to register a rise of 33 points in the Bombay index number and of 28 points in the Calcutta index number in order to bring down the normal rate of exchange once again to 1s. 4d. gold in August 1926 or September 1927. In other words those that were pressing for stabilizing the rupee in 1926 or in 1927 were in reality asking for a *rise* of prices to the extent of 22 or 19 per cent on the price-level in August 1926 or September 1927. There was *no other way* in which Government could have stabilized the rupee at 1s. 4d. gold in either of these months.

Sir Victor Sassoon and Sir Purshotamdas Thakurdas repudiated warmly the suggestion that the process by which such a rise of prices and the consequent fall in exchange could be brought about immediately was *inflation*. Another stalwart of the Currency League¹ did even better. He accused all those who dared to differ from him of not knowing the meaning of the word 'inflation'. It is necessary, therefore, to invite attention to the opinion of foreign economists whose competence cannot be questioned even by the Currency League. Professor Cannan, whom the members of the Currency League often quoted in favour of their pet project of a gold currency, when questioned by the

¹ Mr. B. F. Madon.

Commission as to what the effect would be if the rupee was stabilized at 1s. 4d. said quite clearly, 'I suppose you would have to *water the currency* in India in order to do it with the usual results.'¹ Dr. Gregory replied to a similar question in the same way: 'If you were to insist on a lower rate of exchange, 1s. 4d., then there would be a *preliminary watering down of the currency* to maintain the rate at 1s. 4d.'² Professor Cassel was even more clear and emphatic. 'If, on closer examination, it is shown that the present purchasing power of the rupee lies in the neighbourhood of 1s. 6d., a lowering of the value of the rupee from 1s. 6d. to 1s. 4d.', he pointed out in his memorandum, 'means a process of *inflation* which is just as harmful as the deflation which in some European countries would be required to raise the value of the currency to a higher pre-War level.' The opinion of these distinguished foreign economists makes it plain that the real issue before the Commission was whether the country should go in for this 'watering down' of the currency, the inevitable rise in prices, and its consequent hardship and injustice to a considerable section of the population and its reactions on the central and provincial budgets, with a view to compensate those who might still continue to suffer owing to the maintenance of the 1s. 6d. rate. The verdict of the world's economists³ was unanimously against tampering with the currency in this fashion, and neither the dissenting member nor the champions of

¹ *Report*, Minutes of Evidence, Q. 23331.

² *Ibid.*, Q. 12660.

³ Some of the Indian economists too admitted that a lower ratio involved inflation and all its consequences (see *ibid.*, Q. 7503).

the Currency League faced this clear issue fairly and squarely. Sir Victor Sassoon, the spokesman of the millowners and the chairman of the Currency League, when asked to suggest the exact methods by which he would bring down the exchange rate to 1s. 4d. began to evade the issue by saying: 'There my association have allowed me to suggest that we should not be dogmatic, as we are not currency experts, as to how it should be done.'¹ When pressed further he had recourse to the heroic suggestion that 'two bad monsoons will certainly give you that fall without the necessity for inflating (if you want the word) currency'.² Obviously then he should have asked Government to *postpone* stabilization till the country had the ill-luck of 'two bad monsoons' and not pressed for immediate stabilization of the rupee at 1s. 4d.

5. In paragraphs 68-76 of his minute, Sir Purshotamdas Thakurdas accused the Government of having *manipulated* a rise in exchange by deflation, and argued that the 'deflation and a consequent raising of exchange has been accomplished by preventing the expansion of the currency to the extent normally required by India, as evidenced by the pre-War annual average of expansion'. The pre-War average annual expansion of currency in India was, according to him, over 20 crores of rupees, while the average annual expansion during the years 1921-2 to 1924-5 was only 11.12 crores. There are a number of fallacies in this argument. In the first place, the pre-War average annual expansion of currency must be compared, not with the average for the years 1921-4 alone

¹ *Report, Minutes of Evidence*, Q. 5049.

² *Ibid.*, Q. 5050.

but with the average for the whole of the period 1914-24. The average annual expansion of currency during these years was nearly 25 crores,¹ and not 11·12 crores, the total for the eleven years 1914-5 to 1924-5 being 270·39 crores. To take only exceptional years out of eleven in the case of the post-War period and fourteen in the case of the pre-War period is clearly a misuse of statistics. For a proper comparison we must take at least a ten-year period in both cases.

This line of argument assumes further that (1) the average annual expansion of currency under the pre-War system was a correct measure of the currency needs under an automatic system, and (2) the normal average in a period of *rising* world prices is also the normal in a period of *falling* world prices. The first is obviously untrue if, as he himself agrees, 'under the Indian system contraction is not, and never has been, automatic.'² The very fact that under the pre-War currency system prices rose higher than gold prices in other countries shows that the currency was expanded out of all proportion to the growth of trade and business. The second assumption ignores the difference between the pre-War period and the period following 1920. During the five years ending 1913-4 the balance of trade in merchandise amounted on an average to 78·3 crores, while in 1920-1 it amounted to 79·8 crores, in 1921-2 to 33·9, in

¹ Even excluding sovereigns and half sovereigns the average is 19·33 crores. But for a proper comparison, sovereigns should be included since even when they went wholly into the hoards, they may be presumed to have driven out an equivalent amount of rupees from the hoards into circulation.

² *Hilton Young Commission Report*, para. 16.

1922-3 to 69·9 crores and in 1923-4 to 126·2 crores, giving an average for the three years ending 31 March 1923 of 14·6 crores and for the four years ending 31 March 1924 of 20·6 crores. The first was a period of rising world prices; the second one of falling prices. Sir Purshotamdas himself admitted as a historical fact that prices rise during wars, and gradually fall with peace. It is obviously untenable to argue that currency under the exchange standard must be expanded *at the same rate, whatever the balance of external trade or the volume of internal trade may be*; or that in a period of *falling* prices currency needs to be expanded and that at a rate required in a period of *rising* prices. In 1920, gold prices in the United States *fell* from 233 in January to 179 in December. Omitting gold from consideration, the net contraction of currency effected in India during 1920-1 was 31·58 crores; but this contraction proved in fact insufficient to check the downward fall of the rupee, which fell from 2s. 8½*d.* *sterling* or 1s. 11⁷/₈*d.* *gold* in February to 1s. 6³/₈*d.* *sterling* or 1s. 1⁵/₁₆*d.* *gold* in December 1920, and to 1s. 3³/₈*d.* *sterling* or 1s. 0³/₈*d.* *gold* in March 1921. The year 1921 too was a year of *falling* prices in the United States, the index number coming down from 170 in January to 140 in December. In the months of June and July, the rupee had gone below even 1s. *gold* and yet Government allowed the currency to expand by two crores according to Sir Purshotamdas Thakurdas' estimate. The year 1922 was one of rising prices in the United States; Government wisely abstained from allowing the country to absorb more than 3 crores, with the result that the exchange rose to 1s. 3¹/₂*d.*

sterling or 1s. $2\frac{27}{32}d.$ gold in December 1922.¹ Had the Government added as much as 20 crores a year, the normal according to Sir Purshotamdas Thakurdas, the rupee would have depreciated considerably. At any rate it is not for an advocate of the 1s. 4d. ratio to object to a *course that was absolutely necessary* in order to bring the rupee nearer to 1s. 4d. gold. In 1923, prices fell in the United States from 156 in January to 151 in December 1923 and to 150 in March 1924, and no case really existed for expanding the currency. But the trading community clamoured so much for relief from stringency in the money-market during the busy season of 1923-4, that Government allowed the currency to increase by as much as 22·5 crores,² that is more than Sir Purshotamdas Thakurdas' normal. Indian prices were steady during the year, and under the effect of relative price-levels of the United States and India, there must have been a latent tendency to a *fall* in the normal rate of exchange; but owing to temporary factors such as the balance of account, exchange rose and would have risen higher but for the unjustifiable action of Government in expanding currency by as much as $22\frac{1}{2}$ crores in a period of falling world prices. Up to 1923 Government had done nothing to deserve the indictment of their critics; in fact they deserve censure for having expanded currency at all in such circumstances.

¹ See *Hilton Young Commission Report*, Minute of Dissent, para. 68. Leaving sovereigns out of account, there was a net contraction of currency to the amount of 569 lakhs instead of an expansion of 3 crores.

² According to Sir Purshotamdas Thakurdas' own calculation (Minute of Dissent, para. 68). Excluding sovereigns, the absorption of rupees and notes was only 15·58 crores.

It is instructive to note that in this period of falling prices (1920-3) several countries went in for drastic contraction of currency. In 1920 the total net circulation in England (exclusive of bank notes in the currency notes reserve) amounted to £481,027,000; in 1923 this total declined to £396,36,000. In 1920 the total bank deposits of England amounted to £1821,039,000 and in 1923 these came down to £1650,996,000. In the United States the note circulation of the Federal Reserve Banks declined from \$3351,303,000 in October 1920 to \$2246,673,000 in December 1923. In Italy the note circulation fell from 22000,000,000 lire in November 1920 to 19476,000,000 lire in November 1923. In Norway there was a fall in the note circulation of the Bank of Norway from 478,376,000 Kronen in January 1920 to 395,857,000 Kronen in December 1923.¹

Between December 1923 and September 1924, prices in the United States and India remained fairly steady; there was thus no occasion for expanding the currency till September 1924. Exchange touched 1s. 4½*d. gold* in October 1924 and reached 1s. 5½*d. gold* in June 1925. If this rise in exchange was the result of Government manipulation or deflation of the currency, we must look for it in the facts of the period between October 1924 and June 1925. But according to Sir Purshotamdas Thakurdas himself there was an addition of 16 crores during 1924-5.² We have therefore to fall back upon some other causes for this rise in exchange. World prices rose during this period, the index number

¹ See statistical tables attached to the report of the United States Commission of Gold and Silver Inquiry.

² Excluding sovereigns, the net expansion of currency was only 114 lakhs (Minute of Dissent, para. 68).

of the United States being 149 in September 1924, 161 in March 1925, and 157 in June 1925; this accounts in part for this rise. Indian prices *fell* from 175 in November 1924 to 153 in June 1925; that certainly is a sufficient explanation of the remaining part of the cause of the rise in exchange. But why did Indian prices fall, when currency was expanded by 16 crores? The probable explanation of this phenomenon lies partly in the fact that the volume of trade was abnormally large in this period, partly in the tendency of rupee prices to move in sympathy with sterling prices, which came down from 180 in October 1924 to 161 in June 1925, and partly in the habit of Indian officials in charge of the currency to judge the needs of the situation more by the trend of sterling prices than by that of gold or dollar prices.

Throughout the controversy on this point, it has been assumed as an axiomatic truth that the rate of Indian exchange depended entirely, or at least mainly, on Government manipulation. But as shown in chapter VIII of my *Indian Currency, Banking and Exchange*, the exchange movements during the years 1920-7 were the results of three factors, namely world prices, external trade, and the internal purchasing power of the rupee, itself the resultant of internal trade conditions and of the Government's policy in controlling the supply of currency. Of these factors the policy of the Government was on the whole the *least* important during these eight years.¹ At any rate it had no share in manipulating the *rise in exchange during the period October 1924 to June 1925*,

¹ See also the first paragraph of Sir Basil Blackett's memorandum (*Hilton Young Commission Report*, Appendix 7).

there being no forced contraction of currency after August 1923,¹ when Government definitely gave up the policy of helping the tendency to a rise in exchange by actual contraction of the currency. The most important factors which contributed to the rise in exchange during this interval were firstly, the rise in world prices, and secondly, internal agricultural prosperity and a large surplus of agricultural products for export. In fact it was the readiness of the Government to remit large sums that prevented exchange from rising above 1s. 6d. from October 1924 onwards.² It is undoubtedly true that if Government had decided to manipulate currency by *expanding* it to the extent necessary to prevent the exchange from rising above 1s. 4d. gold, they could have done so during this period. What the critics of the Government policy in this matter can prove is, therefore, not so much the charge of having manipulated currency in order to *bring up* the rate to 1s. 6d. gold, as that of *not having manipulated currency to bring down the exchange* to 1s. 4d. during these months. As Sir Basil Blackett put it, 'the ratio of 1s. 4d. could only have been brought into effect and maintained by *more* intervention, not *less* intervention on the part of the Government or, as our opponents call it, manipulation.'

A word may here be said on the curious use of the word 'manipulation' in this controversy. If currency is contracted even in a period of *falling* world prices, it is said to be 'manipulation' by Government; if Government neither expand nor contract currency but only *abstain* from expanding it,

¹ See Sir Basil Blackett's oral evidence (*Hilton Young Commission Report*, Minutes of Evidence, vol. IV).

² Compare *Report of the Controller of Currency* (1924-5), p. 10.

they are even then accused of manipulation. Strangely enough, when Government *expand* currency, they are seldom accused of manipulation though expansion involves positive action on the part of Government and depends more on the will of Government than contraction.

6. In paragraphs 89-97 of his minute, the dissenting member attempted to prove, on the basis of index numbers of prices, that the greater part of the adjustment of rupee prices to the 1s. 6d. rate was still to come and put his case at its best as follows :— ‘I should, however, like to take the whole range of price movements from July 1922 to February 1926. The world price-level was exactly the same, namely 155 at the beginning and end of this period. The gold parity of the rupee was 90 in July 1922 and 114 in February 1926, that is an increase of 27 per cent. The Calcutta index number was 181 in July 1922 and 158 in February 1926, that is a fall of 23 points. But on a 27 per cent increase in the gold parity of the rupee, a fall of 49 points was called for to bring about complete adjustment of Indian to world prices. The actual fall, however, was 23 points. In other words, a fall of 26 points, or more than half the adjustment, was still to come in February 1926, it being clear that recently “both Indian and world prices have been falling practically in unison” as stated in paragraph 187 of the report. Taking the average of Calcutta and Bombay index numbers instead of the Calcutta number alone, the July 1922 average was 185 and that of February 1926, 155. There has thus been a fall of only 30 points against 50 (27 per cent of 185) to be expected for full adjustment.’¹

¹ Minute of Dissent, para. 95.

In one of his public addresses, Sir Basil Blackett took the opportunity to point out an arithmetical error in this reasoning, observing that the amount of adjustment to be expected from February 1926 was not 50 points but only 39 points, since a rise of 27 per cent in exchange corresponded to a fall of 21 per cent and not 27 per cent in prices. In a spirited rejoinder, Sir Purshotamdas Thakurdas questioned this assumption and asked what it was based upon, though only a little reflection would have shown him that Sir Basil Blackett's assumption was based on the very same theory which he himself had applied, namely that the rate of exchange depends upon relative prices, varying directly as the world prices and inversely as the Indian prices. If exchange *rises* from 100 to 127, Indian prices must fall from 127 to 100, the world prices remaining the same. A fall of 27 on 127 makes 21 per cent and not 27 per cent. In the particular example under consideration

$$100 : 127 :: \frac{155}{185} : \frac{155}{p(\text{the required Indian price level})},$$

which means that p is equal to $\frac{18500}{127}$ or nearly 146.

This amounts to a fall of 39 points as pointed out by Sir Basil Blackett and not 50 points as was assumed by Sir Purshotamdas Thakurdas. If, therefore, the index numbers are any guide, Sir Purshotamdas Thakurdas greatly exaggerated the degree of non-adjustment of Indian prices to 1s. 6d. even in February 1926.

In paragraph 91 of the minute, it is shown that 'since sterling reached gold parity there was up to February 1926 a fall of 9 points in the British index number, compared with a rise of 1 point in the Calcutta number as between June 1925 (when the rupee also touched 1s. 6d. gold) and February

1926'. But if a comparison is made between the beginning of May 1925, when the rupee finally reached 1s. 6d. gold, and that of May 1926, it is found that while the English Board of Trade index number fell from 159 to 145, the Calcutta index number declined from 164 to 150, a fall of 14 points in both cases instead of a rise of 1 point in Calcutta and a fall of 9 points in London prices.¹ But since *sterling* prices were not fully in equilibrium with the *gold* parity of the sterling even in June 1925, comparison should be made, not between the rupee prices and *sterling* prices, but between the Calcutta index number and the United States index number. Between June 1925 and June 1926 the Calcutta index number fell by 6 points from 153 to 147, while the United States Bureau of Labour index number declined from 157 in June 1925 to 152 in June 1926. So far as the index numbers of prices go, it is thus clear that rupee prices had adjusted themselves to a preponderating degree to the exchange rate of 1s. 6d. gold at the time the Commissioners were writing their report. And the continuance of the 1s. 6d. rate during the nine months' interval between June 1926 and March 1927 made the case in favour of the 1s. 6d. ratio every day stronger than before by giving more time for the adjustment of prices to the exchange rate.

But granting for the sake of argument that *complete* adjustment required more time, has Sir Purshotamdas Thakurdas ever attempted to prove the period of time during which prices, wages, contracts and taxes were adjusted to the ratio of 1s. 4d. gold ever since 1917?

¹ See Sir Basil Blackett's address to the Delhi University (23 November 1926), para. 11.

The fact is that between October 1920 and October 1926, it was only in September 1920, and in September and October 1924 that the rupee exchange was 1s. 4d. gold, and that during the full six years prices never had the time and the opportunity to get adjusted to 1s. 4d. gold.

It is impossible for any one to contend with any show of reason that prices, wages, contracts and taxes for the larger part during the years 1917-26 continued in adjustment to the pre-War ratio of 1s. 4d., and that all the violent oscillations of exchange since 1917 had no effect on prices, wages, contracts and taxes. Even if the non-adjustment of prices, wages and contracts to the 1s. 6d. rate was as great as Sir Purshotamdas Thakurdas imagined it to be, he had yet to prove that the adjustment to the 1s. 4d. ratio was *more* complete. If the country was determined to stabilize the exchange *immediately*, it had to choose the rate that would cause it the least disturbance. From this point of view, the presumption surely was in favour of the rate that had continued for more than eighteen months, and the burden lay heavily on those who advocated immediate stabilization at 1s. 4d., even in March 1927, to refute this presumption and prove that it would cause *less* disturbance.¹ The Indian officials admitted frankly before the Commission that it was a case of choice of evils and that the adjustments were probably not quite complete at the 1s. 6d. rate.² But none the less their case was a strong one, for as Sir Basil Blackett argued: 'There is always a very strong onus

¹ Compare also the following extract from Mr. Denning's evidence (*Hilton Young Commission Report*, Minutes of Evidence, Q. 1164): 'Your preference for the present rate is based rather on negative basis of the evidence of the evils of any other course?—Yes, exactly.'

² See Mr. A. C. McWatters' answer (*ibid.*, Q. 746).

of proof falling on those who wish to change the level from any existing one. If you can assume that there has been even a considerable adjustment to a given level, even if the adjustment has not been completed, there are always very strong reasons for not altering the rate unless you have much stronger reasons for altering it than for not altering it. *It is a de facto rate and therefore it holds the field. It does not need to defend itself or to disprove the claims of those who say that some other rate is better.* It does not need to disprove the claims of those who think some other is better, but to leave them to prove them. The budget of this year, for instance is an instance in which an adjustment has been completed. It takes the 1s. 6d. rate : we have made considerable remissions of provincial contributions on the basis of that rate. This is an adjustment which may be said to have been completed. If there is a change in the downward objection, you would either have to take back the provincial contributions that you have given up or to impose some kind of new taxation, or at any rate to postpone some remission of taxation that you have in mind.¹

7. A careful examination of price movements in India and the United States suggests three interesting

¹ *Hilton Young Commission Report*, Minutes of Evidence, Q. 129. The total loss to Government finance which a reduction to 1s. 4d. would have involved was estimated by Mr. McWatters at about 6 crores (ibid., Minutes of Evidence, Q. 2742). Compare also Mr. Kisch : 'From the point of view of Government a reduction of exchange ratio from 1s. 6d. to 1s. 4d. would have far-reaching reactions throughout the administration. One immediate effect would be to increase the burden of home charges by approximately 6 crores per annum, which would militate against the execution of important financial measures that the Government of India have in view. The local Government

conclusions. If relative prices were adjusted at the 1s. 4d. ratio in pre-War days, the normal rate of exchange between June 1925 and March 1927 as determined by the purchasing power parity was not 1s. 4d. gold as is commonly supposed but 1s. 6d. gold. This is proved by the repeated tendency of rupee and world prices to come together at the rate of 1s. 6d. gold. The index number of the United States was 157 in June 1925; the Calcutta index number was exactly 157 a month later in July 1925; in October 1925 both stood at 158; in February 1926 the Calcutta number was 154 while the United States one was 155; in March 1926 the one was 151 while the other was 152; in January and March 1927 the Calcutta number fell to 146, while the United States number was 146·9 in January, 146·4 in February and 145·3 in March 1927. Throughout this period the exchange was in the neighbourhood of 1s. 6d. This interesting phenomenon clearly suggests that the so-called 'natural' ratio was 1s. 6d. between June 1925 and March 1927. This rise in the normal rate of exchange was evidently due to the substantial raising of the customs tariff since the War. That this is the *real cause* of the rise in exchange is admitted by some of the official witnesses before the Commission. In answer to Question 27, Sir Basil Blackett said: 'Broadly speaking, the level of prices is now about 160 as compared with 100 in pre-War days; British, American and Indian prices have come together at a figure

would also suffer severely from any rise in general prices consequent on a decline in exchange. This would again upset financial equilibrium, and the process of readjustment would raise fresh and embarrassing problems affecting the incidence of taxation.'—*Ibid.*, Appendix LXX, para. 9.

about 160.....I am not quite sure what value is really to be attached to any of those index numbers and particularly to an Indian one. It is hard to be sure that it is completely valid. At the same time it does suggest that prices have now come together, and if an explanation is wanted as to the reason why the rupee is at 1s. 6d. now instead of 1s. 4d. as before the War, the rise should be much the same in India as in other gold standard countries, I think the answer is that there has been a very considerable development in the Indian tariff which would naturally raise the Indian figure. With exchange at 1s. 4d. as it was in pre-War days, you should have expected Indian prices to be nearer 180.' Mr. Kisch, the Finance Secretary of the India Office, admitted in his written statement that 'there seems to be no convincing reason for assuming that the ratio between Indian and United Kingdom prices will necessarily be the same in the future as before the War. The course of events has been different in the two countries and the allowance must be made for the heavy general tariff which is now in force in India. Further, there is at present a striking disparity between the index numbers for Indian export and import articles which last July stood at 142 and 191 respectively. The height of this last figure, which owing to the rise in exchange underrates the increase, no doubt largely explains the relatively low imports into India at the present time. But allowing for the rise in exchange from 1s. 4d. to 1s. 6d., the export index of 142 corresponds closely with the *Statist* July number of 158. Thus on the basis of the Indian export index there would seem to be no material disparity between the present and pre-War relations of British prices generally and the prices

of Indian exports.’¹ Does not all this amount to an admission that the 1s. 6d. rate has *nullified* the effect of the rise in tariff,² and that if the beneficent or the adverse effect of the tariff raised since the War had to be maintained, stabilization of exchange should have taken place at a rate that allowed for a *greater* rise of prices in India than in the United Kingdom? It is obvious that in bringing down relative prices to the *same* level in India, the currency authorities entirely ignored the changes in tariff. *This is the real disadvantage from the 1s. 6d. rate*, and to this criticism the only answer attempted by Sir Basil Blackett was that the tariff was mainly a revenue and not a protective tariff.³ But it cannot be denied that it would have had a protective effect but for the rise in exchange, particularly after the repeal of the cotton excise duty.⁴

¹ Compare the chairman’s question to Mr. J. C. Sinha (*Hilton Young Commission Report*, Minutes of Evidence, Q. 7595.): ‘If you consider the export index of 142 only (July 1925) and not the import index figure, which is affected by the tariff, then if you make the allowance of twelve per cent on 142 you do get a figure which is very closely in correspondence with the British index of 158 (July 1925).’

² This also means that the advantage to imports from rising exchange has been offset by the increase in tariff since 1922. See in this connexion *ibid.*, Q. 7797.

³ In his remarks as chairman at a lecture delivered by me on ‘Some Aspects of the Ratio Controversy’ on 19 January 1927.

⁴ Compare Sir Victor Sassoon’s observation: ‘I have worked out the difference between the present 1s. 6d. rate and the 1s. 4d. ratio as a very little less than the excise. So to-day, with the excise removed, all we are getting is, I think, a 0·03 per cent advantage over what we would have had if the excise had been left on and we had our 1s. 4d. gold as we had last year.’—*Hilton Young Commission Report*, Minutes of Evidence, Q. 5038. Compare also the Tariff Board’s report on protection to the steel

8. The second conclusion to which a survey of relative price movements leads serves to show how grossly exaggerated are the complaints made against the deflationary policy of the Government, at least since September 1925. It is not the *high* or *low* level of prices that matters, it is the *rising* or *falling* prices that really inflict injuries upon particular sections of the population. Supposing Government had stabilized the rupee at 1s. 4d. gold in September 1924 as suggested by Sir Purshotamdas Thakurdas in paragraph 67 of his minute, what difference would it have made in the movements of rupee prices or the deflationary policy of the Government? In September 1924 the United States index number was 149, the Calcutta index number being 175. In September 1925 the world prices as measured by the United States index number rose to 160, so that if Government had maintained the gold parity of the rupee at 1s. 4d. they would have been obliged to expand the currency and raise the Indian price-level to about 188 in September 1925. Instead of this *rise* of prices, there was a *fall* in the Calcutta index number from 175 in September 1924 to 155 in September 1925. From October 1925 the prices in the United States showed a downward trend till the index number fell to 149 in August 1926 and again in September 1927. The attempt to maintain the gold value of the rupee at 1s. 4d. would, therefore, have necessitated a deflation to the extent necessary to bring down the Calcutta index from 188 in September 1925 to 175 both in August 1926 and September 1927—a fall of 13 points in the index or 7 per cent in the price-

industry as to the effect of exchange in increasing the degree of protection necessary for this industry.

level. As a matter of fact with exchange at 1s. 6d. the Calcutta index number fell from 155 in September 1925 to 147 both in August 1926 and in October 1927—a fall of 8 points in the index or 4.3 per cent in prices. This plainly suggests that stabilization at 1s. 4d. gold in September 1925 would have necessitated since September 1925 a *greater* deflation of currency than was actually the case under the 1s. 6d. rate.

Another critic of the policy of the Government improves upon Sir Purshotamdas Thakurdas and suggests that 'the most opportune moment when the Government could have restored the pre-War conditions regarding the currency with effect and with advantage to all concerned' was January 1923 when the rupee reached 1s. 4d. sterling.¹ The most obvious comment on this suggestion is that it would not have restored the pre-War conditions till sterling itself had regained its pre-War parity with gold. But apart from this criticism, would this have caused *less* disturbance to all concerned than the course actually followed by the Government of India? During 1923 and 1924 India enjoyed an enviable stability of prices, the Calcutta index number being 175 in January 1923, 174 in December 1923, 174 in March and July 1924, and 175 in August, September and November 1924. But the English (*Economist*) index number rose from 160 in January 1923 to 165 in April 1923, fell to 155 in August 1923, rose again to 170 in December 1923, to 176 in September 1924 and to 180 in December 1924. If, therefore, the relative rupee and sterling prices had been adjusted to the *de facto* rate of 1s. 4d. sterling in January 1923 it would have been necessary to raise the Indian price-level by *over*

¹ Vakil and Muranjan, *Currency and Prices in India*, p. 490.

22 points in order to maintain the stability of the rupee-sterling exchange at 1s. 4d. The *Economist* index number fell by 22 points in the course of the next year, being 180·3 in December 1924, 160 in November 1925, and 158 in December 1925. To keep the parity of the rupee with sterling at 1s. 4d., the rupee prices would have had to be brought *down* again by over 22 points in the course of a single year. Actually the rupee prices fell only 14 points during the twelve months ending November 1925. Surely the disturbance caused first by a *rise* of 22 points in the price-level in two years and then by a rapid *fall* by over 22 points in a single year would have been immensely greater than was actually the result of stable prices for two years followed by a fall of 14 points in one year.

9. A third inference is no less irresistible. Between August 1925 and March 1927 the Bombay index number declined precisely to the same extent as the United States Bureau of Labour index number, both being 160 in the beginning and 145 at the end of this period. Between October 1925 and March 1927, the Calcutta index number fell from 158 to 146 while the dollar prices fell from 158 to 145·3. Had the exchange been stabilized at 1s. 4d. gold during August to October 1925, precisely the *same* relative fall in prices would have taken place. It therefore follows that the disturbance and injury to certain classes caused by the 1s. 6d. rate *since August to October 1925* has been *no greater* than what have taken place even under the 1s. 4d. ratio. Similarly, the disturbance and injury caused by the rise of exchange from January 1921 when the rate fell down to 1s. 0 $\frac{15}{32}$ d. gold to September 1924 when exchange reached 1s. 4 $\frac{1}{2}$ d. gold, would have occurred in any case, whether the final

rate for stabilization had been 1s. 4d. or 1s. 6d. gold. Apart from what has been said above regarding the nullifying effect of exchange on tariff, the only disturbance peculiar to the 1s. 6d. rate is, therefore, the effect of the rise in exchange between October 1924 and June 1925. So far as this rise was due to the rise of world prices (United States), it could have had no disturbing effect on prices and wages in India. So far as it was the result of falling prices in India, it must have necessarily inflicted unmerited injury on certain classes. But it had no disturbing effect on that portion of India's foreign trade which is conducted on the basis of sterling, for the rupee-sterling exchange was in the neighbourhood of 1s. 6d. throughout this period. Against the loss inflicted on certain sections by this rise, we must set off the gain to certain classes from the stability of the rupee-sterling exchange and the compensating effect of a rise in world prices. It is thus plain that the disturbance and injustice caused by this rise in exchange is greatly exaggerated in the popular discussions on the subject.

10. Both the majority and the minority were agreed on a policy of fixing the gold value of the rupee, but stabilization of the Indian currency in gold at any *particular* rate necessarily implied that the rupee prices would continue to fall if gold prices fell. Any injury that might be caused by any contraction or deflation of currency that was needed for moving the rupee prices in sympathy with the gold prices was, therefore, inevitable under any automatic gold standard; it was a necessary price that every country which decided to restore or establish the gold standard had to pay. The only way in which the evil consequences of deflation could have been avoided by the country was to have

postponed stabilization of exchange to August 1926 or to September 1927 when the world prices as measured by the United States index number again stood at the same level as in September 1924, namely 149, maintaining in this interval of two or three years the Indian price-level at or about 175, the level in September 1924. But this course would have produced *instability of exchange* throughout this period. In other words, *stability of prices* would have been gained and *stability of exchange* lost. The gain would have been, in my opinion, immeasurably greater than the loss ; but this was not the case of the critics of the Government. Sir Purshotamdas Thakurdas continued to talk of the opportunity of October 1924 for stabilizing exchange at 1s. 4d. gold, and the Currency League pressed for the *immediate* stabilization of the rupee at 1s. 4d. *even in March 1927*, when the Calcutta index number was only 146 and the United States index number stood at 145·3. Had the Government and the Currency League both desired a *gradual* restoration of the gold parity of the rupee to its pre-War level of 1s. 4d. they could easily have secured it by *letting exchange alone* and following a policy of price stability even in March 1927. The world prices have continued to fall since November 1927, and with a steady Indian price-level, the external value of the rupee would have shown a marked tendency to go down. Between November 1927 and November 1928, the United States index number came down from 150 to 138·5, a fall of 11·5 points ; in November 1929 it came down to 135·2, a fall of 14·8 points in two years. With one year more of the same trend the world price-level would have fallen to about 129 or 128, when the the normal rate of exchange would once again have been 1s. 4d. if only the Indian price-level had been

maintained at about 146, the level of November 1926 and March 1927. The Currency League would then have had within a comparatively short time both the pre-War 1s. 4d. rate and the post-War tariff wall. But this course, though suggested at the time, appealed neither to the Government nor to the Currency League. The average member of the Assembly understood nothing of these 'confounded exchanges', the Government and their critics both believed in *exchange* rather than *price stability*, and each party had their own reason for not allowing exchange to find its own level. The Government wanted a higher gold value of the rupee for their budget, the members of the Currency League were anxious in the interests of those whom they represented for an *immediate rise of prices* rather than for a gradual fall of exchange to 1s. 4d. without any rise of prices. Between these warring sectional interests, the voice of disinterested common sense went unheeded.

11. The foregoing discussion leads obviously to the conclusion that there were serious objections to stabilizing exchange even in March 1927. To stabilize at 1s. 4d. was to raise prices *immediately* and so inflict unmerited injury on certain classes; to stabilize at 1s. 6d. was to nullify the protective effect of the post-War tariff. Both should have been avoided; and the only way in which this could have been done was to have maintained the stability of prices¹ at least for some time if not for

¹ Compare Mr. Keynes: 'I do not think that by the adoption of this policy you need settle anything very precisely. I should not in the case of India at the present stage of things aim at avoiding anything except major price changes which were quite obvious to everybody—there would be no doubt that the value of money had gone up or down, as the case might be.'—*Hilton Young Commission Report*, Minutes of Evidence, Qq. 13033, 13081.

ever, allowing exchange to fall at least to 1s. 4d. under the influence of falling world prices.

At the time Sir Basil Blackett tendered his evidence before the Commission, he believed that the 'time was as favourable for stabilization as we were ever likely to have' because to his mind there was 'very much more prospect of a relative stability' in world prices than there had been 'until recently'.¹ The actual course of events has proved that he was over-sanguine in his expectations. In 1925 when he ventured to indulge in this prophecy, the United States Bureau of Labour index number stood at 148·3 while the English Board of Trade index number was 159·1.² The former fell to 143·3 in 1926, to 136·7 in 1927, to 140 in 1928, to 139·3 in January 1929, to 137·2 in May 1929, and to 135·2 in November 1929; the latter declined to 148·1 in 1926, to 141·4 in 1927, to 140·3 in 1928, to 138·3 in January 1929, to 135·8 in May 1929, to 132·5 in December 1929 and to 122 in May 1930. Taking the three years ending 1925, we find that the index number of the United States rose only 4·2 points, being 144·1 in 1923, 140·5 in 1924 and 148·3 in 1925, while the English Board of Trade index number for Great Britain stood at 159 in 1923, 166·2 in 1924 and 159·1 in 1925. These figures clearly show that the prices both in the United States and Great Britain fell far more heavily during the three years ending 1928 than in the three years ending 1925. Far from a 'relative stability' in world prices since Sir Basil Blackett's prophecy, there has been a relative *instability* in external prices. What is worse, the

¹ *Report*, Minutes of Evidence, Q. 15.

² See *The Economist* 27 July 1929.

tendency towards a fall in prices still continues.¹ Was it wise then to have stabilized the rupee at the current rate of exchange in 1925 or even 1927? Would not the country have been spared the disturbance due to these rapid fluctuations in world prices if exchange had been left to its own fate? Sir Basil Blackett himself brought out clearly the full implications of exchange stability when he said to the Commission: 'Once exchange is fixed, of the three factors which have to be considered—international prices, internal prices, and exchange—one will be completely out of your control, namely international prices; the intermediate link, that is exchange, will be fixed; therefore the remaining factor, internal prices, will be at the mercy of outside movements, and it will not be in your power to control the situation. Supposing the monetary position in America were to lead to an increase in the value of gold, prices in India would be directly affected.'² It is obvious, therefore, that if stabilization had been postponed till exchange fell to 1s. 4d. gold, under the influence of falling world prices that would have been a *better* course than stabilization at 1s. 6d. in 1925 or 1927 in so far as it would have *decreased the extent* of the fall in the Indian price-level. Whatever may be the

¹ The Calcutta index number fell from 143 in June 1929 to 115 in July 1930; that of Japan fell from 168 in June 1929 to 148 in March 1930; that of the United Kingdom from 136 in June 1929 to 122 in May and 117·8 in August 1930; that of France from 610 in June 1929 to 548 in April and 532·7 in August 1930; that of Holland from 141 in June 1929 to 122 in March and 115 in July 1930; that of Norway from 151 in June 1929 to 145 in April and 141 in August 1930; while that of the United States registered a fall from 140 in July 1929 to 120·3 in July 1930.

² *Report, Minutes of Evidence, Q. 736.*

disturbing effects of a falling exchange on the external trade of India, they are nothing as compared with the disturbance caused by a heavy continuous *fall in prices* to the internal trade and economy of the country. The consequences of a falling exchange are serious *only when they tend to raise prices*. Sir Basil Blackett was right in opposing stoutly the clamorous demand for an *immediate* rise of prices by inflation; but neither he nor his critics had any justification for the enthusiasm they displayed in insisting on fixing exchange at 1s. 6d. or at 1s. 4d. at a time when the balance of weighty evidence before the Commission was overwhelmingly in favour of the view that world prices would continue to fall in the next five years.¹ The course of events

¹ The Commission had before them estimates made by the Harvard Economic Service, Sir James Wilson, Mr. Kitchin, Professor Cassel and Dr. Gregory. Except the last, all others expected the future course of prices to be downward in the course of the next five years at least. Even the India Office through Mr. Kisch thought it necessary to sound the following note of caution on this point: 'If any substantial rise in world prices is to be apprehended at an early date, the ratio of the rupee in terms of gold, determined in the light of existing factors, might prove lower than would be expedient. On the other hand if any substantial fall in world prices is likely, the ratio, determined in the light of existing factors, might prove higher than would be conducive to India's economic interests in the long run, or might even conceivably be beyond the power of Government to render effective in the end. It is not suggested that any clear evidence exists for inclining to either of these views.'—*Hilton Young Commission Report*, Appendix LXX, para. 4. During his oral evidence Sir Basil Blackett again reminded the Commission that, while making his recommendation to stabilize the rupee at 1s. 6d., he 'coupled it with the necessity of the Commission assuring themselves from those authorities most capable of giving an opinion on that point, that there was no

has amply vindicated those English and Indian witnesses who advised the Government of India to 'wait and see' before stabilizing the rupee. Sir Charles Addis told the Commission that 'it would be a safer policy to pursue if India were to wait' until the 'reconstruction of the economic life of Europe permits of some sort of reasonable estimate being taken of the future course of world prices than to go through the painful process subsequently of adjusting her internal prices to accommodate them to what the world prices then might be', and that during the interval the policy of the Government 'should be as far as possible to mitigate the seasonable fluctuations of exchange', but as regards the more permanent movements, as far as these could be ascertained 'exchange should be allowed to take its course'.¹ Mr. Keynes was of the same view and said to the Commission: 'If my advice were asked, I should advise the Royal Commission to do nothing whatever. I think the present situation in India is the best obtainable at the moment. That is to say, there is, for practical purposes, reasonable stability of the exchanges, and India maintains her freedom in the event of future happenings rendering any alternative course more desirable. I think the present moment is a bad moment for making a change and that almost any positive course recommended now is likely to be bad.....At present, in the event of a serious fluctuation in the value of gold either upwards or downwards, India is free to avoid the disadvantages of the fluctuation just as she avoided a part of it during the boom and

reason to anticipate a marked change in the purchasing power of gold in the period ahead' (ibid., Minutes of Evidence, Q. 11087).

¹ Ibid., Minutes of Evidence, Qq. 13724, 13728, 13732.

the slump of 1920 and the subsequent years..... In my opinion India should pursue her present course—that is as long as nothing special happens in the outside world—of maintaining practicable stability in the neighbourhood of 1s. 6d., but in the event of gold becoming unstable in the outside world—and no one can say it will not—of maintaining legislative freedom to adjust her exchange to the events in the outside world, and so preserving the stability of her internal prices.’¹ Similarly, several Indian witnesses² were opposed to the policy of stabilization at 1s. 6d. either because they thought that the world conditions were still unstable or because they believed that the world prices would fall and that the rate of exchange would therefore come down.³ Almost all the arguments advanced by the Commission against immediate stabilization at 1s. 4d. instead of at 1s. 6d. were really arguments *in favour of stability of prices rather than in favour of maintaining the 1s. 6d. rate in the face of falling world prices*. The contention that relative prices in India and outside and the *de facto* rate of exchange were in harmony with each other had no force whatever when relative prices threatened every now and then to go out of equilibrium owing to falling world prices. The view taken by Sir Charles Addis and other witnesses referred to above was based upon ordinary

¹ *Report*, Minutes of Evidence, Qq. 12981, 13005.

² See in addition to my evidence, that of Dr. P. Basu, Mr. Gyan Chand, Mr. C. H. Hamilton and Mr. J. McForrester (*ibid.*, vols. II, IV), and the London Chamber of Commerce (*ibid.*, vol. III).

³ See my evidence (oral and written) before the Commission; also the statement submitted by the Punjab Chamber of Commerce, and the evidence of Sir Montagu Webb (*ibid.*, vol. III).

common sense ; it was prudent not to run the risk of a change in future gold prices ; there was no harm in waiting a little longer, especially when there was an ' appreciable ' if not ' a great ' risk in fixing the Indian exchange until a greater degree of stability had been reached in Europe. Even if the Commission felt that they were right in stabilizing the rupee at that time, they would have had a far better prospect of being right if they had waited some time longer.¹ The witnesses before the Commission had in 1925 some justification for the belief that world prices had attained a substantial measure of stability, but by the time Sir Basil Blackett sought the sanction of the Indian Legislature for stabilization at 1s. 6d., he had ample proofs that this belief was not well-founded, for the United States index number had come down from 158 in November 1925 to 145 in March 1927. It was useless for Sir Basil Blackett to preach to others the soundness of a policy of price stability when the actual course followed by him made for price instability. The truth is that the country fell a victim once again to the old fallacy of regarding exchange stability as of cardinal importance *even when it was inconsistent with price stability*,² and the Government and their chief opponents were *equally* responsible for misleading the ill-informed, or rather uninformed, members of the Indian Legislature, into thinking that

¹ See *Report*, Minutes of Evidence, Qq. 13371, 13375, 13786, 14394.

² Compare Sir Basil Blackett's admission before the Commission: ' If the rupee is stabilized in terms of gold, Indian prices must *inevitably tend to follow world prices* and to suffer a considerable rise if there is a considerable rise in world prices. That is unavoidable.'—*Ibid.*, Minutes of Evidence, Q. 113.

stabilization of exchange was the right course to pursue. The Finance Members of the Government of India might regard the question of the 1s. 4d. ratio versus the 1s. 6d. rate as a dead issue and score a dialectic victory over their critics in the Assembly by rightly identifying them with inflationists, but so long as world prices continued to fall, a policy of letting exchange fall at least to 1s. 4d. would retain the merit of allowing exchange to absorb the shock of changes in world prices, as was done during the period 1919-22, and so sparing the country the disturbance due to falling prices for *some* time. As was pointed out by Sir Basil Blackett, 'if you decide on stabilization of exchange of the rupee, you give up the power to use exchange as the shock absorber.'¹ Nobody who cares to read the expert evidence before the Commission can find the least justification for *ignoring altogether* the prospect of falling world prices, against which the easiest remedy was to use exchange as a shock absorber. That a policy of stabilizing prices in India while world prices were changing was not an impossibility, was proved by the brilliant success achieved by Sir Basil Blackett during the years 1922-4. Deflation or contraction of currency is not a light matter in any country, much less in India where it creates serious difficulties in trade centres like Bombay and Calcutta. These act as buffers between its external and its internal conditions and are unable to pass on quickly to the whole country the shock of a violent drop in world prices, owing to the fact that the Indian money-market is almost wholly centralized in these two cities.²

¹ *Report, Minutes of Evidence, Q. 116.*

² *Ibid., Qq. 7619-27.*

Even to-day, the issue of falling prices, whether in India or outside is *not* a dead one; it is an ever-living issue for those who continue to suffer from their ill-effects. And this suffering *was* not and *is* not *inevitable*; it can easily be avoided if only the Indian Government and their critics give up at least for a short period their pathetic faith in the false goddess of exchange stability.¹

¹ Compare Mr. Keynes: 'If prices in the outside world were booming as they were in 1919 and 1920 or slumping as they were in 1921 and 1922, I should have thought that an indication that the Indian exchange ought not to be kept steady. If, in such circumstances of the outside world, the stability of exchange was to be put first, that would bring about fluctuations of internal prices which would be contrary to Indian interests.'—*Hilton Young Commission Report*, Minutes of Evidence, Q. 13027.

I. Statement comparing movements of gold, sterling and rupee prices and course of exchange since January 1920

Index number of prices				Rate of exchange from Calcutta on London on the 1st of the month	
	Great Britain ¹ (1913 parity)	United States ² (1913 parity)	India ³ (July 1914 parity)	Sterling	Gold
1920				s. d.	s. d.
January	289	233		2 3 $\frac{7}{8}$	1 10
February	303	232		2 8 $\frac{1}{2}$	1 11 $\frac{7}{8}$
March	310	234	201 (annual average)	2 7	1 9 $\frac{3}{8}$
April	306	245		2 4	1 10 $\frac{1}{4}$
May	305	247		2 3 $\frac{1}{4}$	1 9 $\frac{7}{8}$
June	291	243		2 1 $\frac{1}{4}$	1 8 $\frac{3}{8}$

¹ *Economist* index number.

² United States Bureau of Labour index number.

³ Revised index number given in the *Indian Trade Journal*.

Index number of prices				Rate of exchange from Calcutta on London on the 1st of the month	
	Great Britain ¹ (1913 parity)	United States ² (1913 parity)	India ³ (July 1914 parity)	Sterling	Gold
1920 <i>contd.</i>					
July	293	241		s. 1 8 $\frac{3}{4}$ d.	s. 1 4 $\frac{7}{8}$ d.
August	288	231		1 10 $\frac{1}{2}$	1 5 $\frac{1}{8}$
September	284	226		1 10 $\frac{1}{2}$	1 4 $\frac{5}{8}$
October	266	211	201 (annual average)	1 9 $\frac{3}{8}$	1 3 $\frac{1}{2}$
November	246	196		1 7 $\frac{3}{8}$	1 1 $\frac{1}{2}$
December	220	179		1 6 $\frac{3}{8}$	1 1 $\frac{1}{8}$
1921					
January	209	170		1 5 $\frac{1}{4}$	1 0 $\frac{1}{2}$
February	192	160		1 4 $\frac{1}{4}$	1 1 $\frac{1}{8}$
March	189	155		1 3 $\frac{3}{8}$	1 0 $\frac{3}{8}$
April	183	148		1 3 $\frac{3}{8}$	1 0 $\frac{1}{2}$
May	182	145	178 (annual average)	1 3 $\frac{1}{2}$	1 0 $\frac{3}{8}$
June	179	142		1 3 $\frac{1}{2}$	1 0 $\frac{1}{4}$
July	178	141		1 3 $\frac{1}{8}$	1 1 $\frac{3}{8}$
August	179	142		1 3 $\frac{1}{8}$	1 1 $\frac{3}{8}$
September	183	141		1 4 $\frac{1}{8}$	1 1 $\frac{3}{8}$

October	170	142				5 $\frac{8}{8}$	I		I	1 $\frac{8}{8}$
November	166	141				4 $\frac{5}{7}$	I		I	1 $\frac{5}{6}$
December	162	140				3 $\frac{6}{7}$	I		I	1 $\frac{5}{8}$
1922										
January	159	138				3 $\frac{5}{6}$	I		I	1 $\frac{5}{8}$
February	158	141				3 $\frac{6}{8}$	I		I	1 $\frac{5}{8}$
March	160	142				3 $\frac{3}{6}$	I		I	1 $\frac{5}{7}$
April	159	143				3 $\frac{1}{6}$	I		I	1 $\frac{3}{8}$
May	162	148				3 $\frac{5}{8}$	I		I	1 $\frac{3}{8}$
June	163	150				3 $\frac{1}{6}$	I		I	1 $\frac{3}{8}$
July	163	155				3 $\frac{6}{8}$	I		I	2 $\frac{3}{8}$
August	158	155				3 $\frac{3}{8}$	I		I	2 $\frac{1}{6}$
September	156	153				3 $\frac{1}{7}$	I		I	2 $\frac{5}{6}$
October	158	154				3 $\frac{3}{8}$	I		I	2 $\frac{7}{8}$
November	159	156				3 $\frac{1}{6}$	I		I	2 $\frac{7}{8}$
December	158	156				3 $\frac{5}{8}$	I		I	2 $\frac{1}{8}$

¹ *Economist* index number.² United States Bureau of Labour index number.³ Revised index number given in the *Indian Trade Journal*.

Index number of prices				Rate of exchange from Calcutta on London on the 1st of the month	
	Great Britain ¹ (1913 parity)	United States ² (1913 parity)	India ³ (July 1914 parity)	Sterling	Gold
1923				<i>d.</i>	<i>d.</i>
January	160	156	175	<i>s.</i> 4 $\frac{3}{4}$	<i>s.</i> 3 $\frac{9}{8}$
February	163	157	176	4 $\frac{5}{8}$	3 $\frac{5}{8}$
March	163	159	177	4 $\frac{5}{8}$	3 $\frac{5}{8}$
April	165	159	173	4 $\frac{1}{8}$	3 $\frac{1}{2}$
May	164	156	169	4 $\frac{3}{8}$	3 $\frac{1}{8}$
June	160	153	170	4 $\frac{1}{8}$	3 $\frac{1}{8}$
July	155	151	166	4 $\frac{3}{8}$	3 $\frac{1}{8}$
August	155	150	167	4 $\frac{1}{8}$	3 $\frac{1}{8}$
September	160	154	169	4 $\frac{3}{8}$	3 $\frac{1}{8}$
October	160	153	169	4 $\frac{3}{8}$	3 $\frac{1}{8}$
November	169	152	172	4 $\frac{1}{8}$	3 $\frac{1}{8}$
December	170	151	174	5 $\frac{7}{8}$	3 $\frac{1}{8}$
1924					
January	173	151	170	5 $\frac{5}{8}$	3 $\frac{1}{8}$
February	173	152	173	5 $\frac{1}{8}$	3 $\frac{1}{8}$
March	172	150	174	4 $\frac{1}{2}$	2 $\frac{9}{16}$

April	172	148	169	I	48 $\frac{1}{2}$	I	28 $\frac{3}{4}$
May	168	147	171	I	41 $\frac{1}{2}$	I	3
June	168	145	171	I	48 $\frac{3}{4}$	I	2 $\frac{1}{2}$
July	173	147	174	I	5	I	3 $\frac{1}{2}$
August	172	150	175	I	5 $\frac{1}{2}$	I	3 $\frac{1}{2}$
September	176	149	175	I	5 $\frac{3}{4}$	I	3 $\frac{1}{2}$
October	180	152	176	I	5 $\frac{3}{4}$	I	4 $\frac{1}{2}$
November	179	153	175	I	6	I	4 $\frac{1}{2}$
December	180	157	171	I	6 $\frac{1}{2}$	I	5 $\frac{1}{2}$
1925							
January	177	160	165 ¹	I	6 $\frac{1}{2}$	I	5 $\frac{1}{2}$
February	177	161	164	I	5 $\frac{1}{2}$	I	5 $\frac{1}{2}$
March	174	161	162	I	5 $\frac{3}{4}$	I	5 $\frac{1}{2}$
April	169	156	164	I	5 $\frac{3}{4}$	I	5 $\frac{1}{2}$
May	165	155	159	I	5 $\frac{1}{2}$	I	5 $\frac{1}{2}$
June	161	157	153	I	5 $\frac{3}{4}$	I	5 $\frac{1}{2}$

¹ *Economist* index number.

² United States Bureau of Labour index number.

³ Revised index number given in the *Indian Trade Journal*.

⁴ Index number of wholesale prices in Calcutta of the following commodities :—

Cereals, pulses, sugar, tea, other food articles, oil-seeds, oil (mustard), jute (raw), jute (manufactured), cotton (raw), cotton (manufactured), other textiles (wool and silk), hides and skins, metals, other raw and manufactured articles, and building materials (teakwood).

Index number of prices				Rate of exchange from Calcutta on London on the 1st of the month	
	Great Britain ¹ (1913 parity)	United States ² (1913 parity)	India ³ (July 1914 parity)	Sterling	Gold ⁴
1925 <i>contd.</i>					
July	165	160	157	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
August	165	160	154	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
September	164	160	155	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
October	161	158	158	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
November	160	158	161	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
December	158	157	159	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
1926					
January	157	156	159	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
February	154	155	154	S. $6\frac{5}{8}\frac{3}{4}$	d. $6\frac{1}{16}$
March	152	152	151	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
April	150	151	149	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
May	149·4	152	146	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
June	150	152	147	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
July	150	150·7	145	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
August	154	149·2	147	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$
September	157	150·5	146	S. $5\frac{1}{2}\frac{5}{8}$	d. $5\frac{1}{8}$

October	157	149.7	144	1	58 $\frac{9}{10}$
November	155.3	148.1	146	1	58 $\frac{7}{10}$
December	147.6	147.2	146	1	58 $\frac{3}{4}$
1927					
January	146	146.9	146	1	68 $\frac{1}{2}$
February	149	146.4	148	1	58 $\frac{1}{2}$
March	146	145.3	146	1	58 $\frac{1}{2}$
April	146	144.2	145	1	58 $\frac{1}{2}$
May	148	144.1	146	1	58 $\frac{1}{2}$
June	149	143.7	149	1	58 $\frac{1}{2}$
July	149	144.6	150	1	58 $\frac{1}{2}$
August	151	147	151	1	58 $\frac{1}{2}$
September	150	149	149	1	58 $\frac{1}{2}$
October	148	150	147	1	58 $\frac{1}{2}$
November	147	150	148	1	6
December	146	149	148	1	68 $\frac{3}{4}$

¹ *Economist* index number.

² United States Bureau of Labour index number.

³ Index number of wholesale prices in Calcutta.

⁴ Sterling and gold rates were the same from the end of 1925.

Index number of prices				Rate of exchange from Calcutta on London on the 1st of the month
	Great Britain ¹ (1913 parity)	United States ² (1913. parity)	India ³ (July 1914 parity)	Sterling = Gold
1928				<i>d.</i>
January	144	138	145	1
February	146	138	144	6 $\frac{3}{4}$
March	147	137.5	144	6 $\frac{3}{4}$
April	150	139.5	146	5 $\frac{3}{4}$
May	150	141.3	147	5 $\frac{3}{4}$
June	147.2	139.8	145	5 $\frac{3}{4}$
July	144.5	140.8	148	5 $\frac{3}{4}$
August	143	141.7	143	5 $\frac{1}{2}$
September	141.6	143.4	142	5 $\frac{1}{2}$
October	142	140.1	143	5 $\frac{3}{4}$
November	142	138.5	146	6 $\frac{3}{4}$
December		138.5	145	6 $\frac{1}{2}$

¹ *Economist* index number.² United States Bureau of Labour index number.³ Index number of wholesale prices in Calcutta.

II. Absorption of currency by the public from 1898-9 to 1927-8¹
(in lakhs of rupees)

	Rupees	Notes	Total	Sovereigns and half- sovereigns	Grand Total
1898-9	—1,61	2,52	91	— ²	91
1899-1900	13,93	1,72	15,65	4,05	19,70
1900-1	8,62	—18	8,44	3,05	11,49
1901-2	—68	30	—38	1,47	1,09
1902-3	2	2,59	2,61	3,23	5,84
1903-4	10,97	3,28	14,25	4,92	19,17
1904-5	7,43	37	7,80	4,41	12,21
1905-6	14,50	4,16	18,66	5,70	24,36
1906-7	18,00	3,83	21,83	7,70	29,53
1907-8	3,92	—3,85	7	11,08	11,15
1908-9	—14,88	2,35	—12,53	8,75	—3,78
1909-10	13,22	5,03	18,25	4,31	22,56
1910-1	3,34	19	3,53	2,15	15,68
1911-2	11,50	4,44	15,94	13,33	29,27
1912-3	10,49	2,71	13,20	16,65	29,85
1913-4	5,32	2,65	7,97	18,11	26,08

¹ Taken from the *Report of the Controller of Currency*.

² Sovereigns were not legal tender in this year.

	Rupees	Notes	Total	Sovereigns and half-sovereigns	Grand Total
1914-5	-6,70	-6,01	-12,71	8,43 ¹	-4,28
1915-6	10,40	9,23	19,63	29	19,92
1916-7	33,81	13,89	47,70	3,18	50,88
1917-8	27,86	17,22	45,08	14,26	59,34
1918-9	45,02	49,29	94,31	5,21 ²	99,52
Average for the five years 1914-5 to 1918-9	22,08	16,72	38,80	—	—
1919-20	20,09	20,20	40,29	—3,32	36,97
1920-1	-25,68	-5,90	-31,58	-4,38	-35,96
1921-2	-10,46	9,35	-1,11	2,78	1,67
1922-3	-9,56	3,87	-5,69	9,43	3,74
1923-4	7,62	7,96	15,58	6,74	22,32
1924-5	3,65	-2,51	1,14	14,53	15,67
1925-6	-8,17	1,16	-7,01	11,07	4,06
1926-7	-19,76	-3,40	-23,16	6,24 ³	-16,92
1927-8	-3,71	10,22	6,47	—	—
1928-9	-3,03	3,57	54	—	—
1929-30	-21,71	-18,58	-40,29	—	—
Average for eleven years 1919-20 to 1929-30	-6,43	2,36	-4,07	—	—

¹ Since 1914-5, these have, most probably, not functioned as currency.

² In addition, gold mohurs to the value of 60 lakhs were absorbed during 1918-9.

³ From 1 April 1927 these have ceased to be legal tender.

III. Index numbers of wholesale prices in Calcutta by groups of articles (prices in July 1914=100)

Number of items included	Food-grains		Sugar	Tea	Other food articles	Oil-seeds	Oil (mustard)	Jute (raw)	Jute (manufactured)	Cotton (raw)	Cotton (manufactured)	Other textiles (wool and silk)	Hides and skins	Metals	Other raw and manu-factured articles	Building materials (teakwood)	All commodities
	Cereals	Pulses															
...	8	6	5	3	9	3	2	3	4	2	7	2	3	9	8	1	72
1914 (end of July)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1915 (annual average)	115	122	164	115	121	81	78	68	109	89	97	94	102	120	128	99	112
1916	106	107	184	114	146	85	71	80	129	121	134	114	118	186	155	80	128
1917	92	96	189	95	185	83	71	65	138	174	103	129	112	266	183	103	145
1918	110	119	180	95	226	104	104	75	219	309	298	145	96	301	184	143	178
1919	163	180	268	105	206	198	161	115	175	230	325	149	184	236	192	137	196
1920	154	166	407	78	184	173	128	104	149	153	295	162	147	238	231	138	201
1921	145	160	270	100	157	135	108	83	105	143	280	142	108	237	242	146	178
1922	137	152	221	159	186	147	116	110	144	191	239	162	120	175	235	131	176
1923	114	112	246	206	222	138	100	90	138	244	221	163	135	165	207	103	172
1924	123	114	239	205	217	144	107	102	159	272	229	146	124	162	193	120	173
1925	136	128	179	180	184	146	113	154	177	205	210	132	104	131	165	119	159
1926	140	149	178	180	163	134	117	120	147	147	173	119	113	140	141	132	148
1927	139	155	171	165	168	143	116	93	146	167	159	126	119	133	151	146	148
1928	133	157	165	154	157	142	110	100	151	167	159	139	134	125	138	150	145
1929	125	152	162	140	162	155	108	95	122	146	160	133	113	128	141	151	141

	Food-grains		Sugar	Tea	Other food articles	Oil-seeds	Oil (mustard)	Jute (raw)	Jute (manufactured)	Cotton (raw)	Cotton (manufactured)	Other textiles (wool and silk)	Hides and skins	Metals	Other raw and manu- factured articles	Building materials (teak wood)	All commodities
	Cereals	Pulses															
Number of items in- cluded	8	6	5	3	9	3	2	3	4	2	7	2	3	6	8	1	72
1922																	
January	139	177	225	161	161	132	105	85	110	165	253	156	126	220	236	132	175
February	137	174	218	146	175	143	109	82	107	172	244	162	131	193	250	130	176
March	153	173	222	146	167	148	130	90	120	189	250	150	126	187	260	132	180
April	145	166	223	146	172	143	125	107	133	189	250	147	114	183	259	132	180
May	147	152	217	144	183	161	120	120	172	198	247	150	109	178	261	130	182
June	141	149	221	137	182	156	120	123	164	206	242	150	110	165	251	127	178
July	142	149	224	136	191	155	114	121	165	209	240	163	113	163	225	132	176
August	135	145	227	154	196	145	114	109	157	208	235	169	112	164	213	127	173
September	130	141	220	152	199	146	114	118	160	187	229	166	110	165	214	132	172
October	133	143	218	179	200	149	116	113	138	189	225	174	128	163	218	130	172
November	128	130	222	204	203	145	114	130	149	190	225	189	132	162	212	132	174
December	116	121	218	200	206	142	111	126	149	188	223	166	133	160	221	132	172

1923

January
February
March
April
May
June
July
August
September
October
November
December

...	114	118	212	209	225	134	113	119	153	216	225	160	137	171	219	132	175
...	121	112	223	204	234	138	113	115	153	216	224	162	136	159	226	127	176
...	119	111	260	204	224	139	105	111	151	228	221	160	149	160	229	127	177
...	118	114	272	204	203	140	99	104	144	231	218	162	147	160	211	127	173
...	115	110	277	213	222	136	117	86	133	231	217	162	143	160	194	124	172
...	115	108	265	202	219	138	87	92	137	245	217	179	138	159	191	122	170
...	111	114	246	209	207	135	93	76	126	238	216	174	129	160	187	116	166
...	114	112	231	211	222	134	92	73	123	239	214	160	125	163	196	119	167
...	114	117	233	210	219	139	92	67	131	240	220	166	127	170	210	108	169
...	113	114	234	209	216	136	96	69	133	247	221	157	129	172	207	114	169
...	108	111	247	196	229	142	92	89	133	304	229	160	129	168	205	111	172
...	105	109	253	197	239	140	96	84	137	293	228	160	133	173	205	111	174

1924

January
February
March
April
May
June
July
August
September
October
November
December

...	108	108	259	195	212	138	92	82	133	289	232	157	148	170	196	111	170
...	104	102	274	193	215	139	92	88	144	289	233	157	150	170	202	108	173
...	106	107	272	194	220	147	93	91	148	283	234	145	149	175	201	105	174
...	106	99	251	194	212	131	93	86	145	295	232	163	129	169	196	105	169
...	112	110	244	197	220	132	92	88	146	293	231	160	123	162	196	103	171
...	118	121	244	209	222	135	94	88	150	292	229	151	109	155	189	100	171
...	134	129	225	200	215	147	129	102	162	297	229	148	105	161	186	100	174
...	135	118	227	195	214	150	124	109	170	295	230	145	108	165	198	100	175
...	142	115	224	205	218	152	121	117	182	242	224	136	114	154	193	100	175
...	138	118	222	213	217	155	115	132	193	238	225	136	119	157	190	100	176
...	137	122	218	240	217	154	220	123	179	233	225	130	123	156	186	100	175
...	135	124	208	222	223	154	114	120	161	219	221	129	126	153	182	100	171

Number of items included	Food-grains		Sugar	Tea	Other food articles	Oil-seeds	Oil (mustard)	Jute (raw)	Jute (manufactured)	Cotton (raw)	Cotton (manufactured)	Other textiles (wool and silk)	Hides and skins	Metals	Other raw and manufactured articles	Building materials (teakwood)	All commodities
	Cereals	Pulses															
1925	8	9	5	3	9	3	2	3	4	2	7	2	3	6	8	1	72
January	135	115	193	196	215	153	109	118	163	212	222	127	127	137	181	108	165
February	135	118	185	192	206	154	109	132	167	217	222	127	126	133	175	114	164
March	134	116	184	192	196	146	111	145	171	229	223	127	102	133	172	114	162
April	143	125	185	192	192	145	115	166	168	218	219	144	100	133	170	114	164
May	137	125	182	192	185	144	112	153	156	210	214	140	92	132	164	116	159
June	137	125	180	155	164	147	118	129	161	210	212	129	93	130	161	114	153
July	135	127	174	162	180	147	115	137	179	215	209	141	93	129	161	116	157
August	138	128	172	138	174	148	115	134	177	215	205	135	95	128	159	116	154
September	133	129	172	153	173	144	115	145	188	212	204	138	92	128	159	122	155
October	135	134	170	178	172	139	113	203	202	180	199	136	95	128	160	127	158
November	138	142	174	209	176	143	113	199	194	179	196	123	115	133	160	130	161
December	133	151	173	201	180	141	110	185	194	158	192	123	116	132	154	132	159

1926 March June September December	...	139	142	166	203	156	133	111	153	156	157	185	126	120	143	143	135	151
	...	143	141	187	182	154	133	121	126	141	149	177	112	104	138	136	132	147
	...	139	159	177	162	163	131	120	88	138	157	168	124	107	136	142	132	146
	...	133	160	186	153	169	137	124	89	143	119	153	124	118	138	152	132	146
1927 March June September December	...	141	155	176	138	166	134	118	93	145	148	163	127	119	138	145	146	146
	...	140	155	171	179	171	155	119	90	139	169	154	129	110	132	154	149	149
	...	136	155	165	181	170	145	114	92	156	201	163	123	109	133	152	149	149
	...	137	155	160	185	166	141	114	91	151	170	157	123	152	127	149	149	148
1928 March June September December	...	130	146	164	169	163	136	109	95	147	168	155	137	147	125	137	149	144
	...	132	150	165	141	155	139	109	108	157	182	161	147	130	124	136	149	145
	...	136	159	167	128	152	147	109	94	145	149	161	133	121	124	140	151	142
	...	131	181	161	157	153	152	114	97	147	159	160	140	125	127	138	151	145
1929 March June September December	...	129	146	164	157	159	148	105	106	139	161	161	140	130	127	139	151	143
	...	122	143	165	122	158	140	107	94	120	144	160	134	111	130	141	151	138
	...	128	155	164	129	170	175	113	90	122	146	161	131	109	130	144	151	143
	...	119	150	151	112	166	164	109	84	103	128	153	114	109	125	130	151	134
1930 March June September	...	103	140	154	121	151	142	99	72	89	107	149	101	100	117	127	154	125
	...	103	116	154	113	135	133	97	69	89	87	138	78	91	113	120	154	116
	...	96	111	157	105	135	117	95	53	86	80	131	75	72	115	117	154	111
	...	96	111	157	105	135	117	95	53	86	80	131	75	72	115	117	154	111

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